RZ1070
RZ1090
SERIES
TECHNICAL MANUAL

REVISION 0.91
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Differential information compared to the existing RZ9 Series.

RISO INTERNATIONAL GROUP

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INTRODUCTION

The existing RZ9 Series machines are based on RZ Series.

The new RZ10 Series are based on EZ Series.

Many of the parts used on the RZ10 Series are changed to those of EZ machines.

It is therefore important to use the Spare Parts List for RZ1070 & RZ1090 in ordering the parts for these new RZ10 Series models.

Though many of the parts are replaced from RZ type to EZ type on the RZ10 Series, the removal of parts, etc. remains very similar.

This technical manual covers the major differences between the existing RZ9 Series and the new RZ10 Series.

The information on the small changes, such as replacement of RZ based parts to EZ based parts are omitted in this manual, as well as small changes on the components and parts.

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CHAPTER 1: MAINTENANCE

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NOTE

The major difference between RZ9 Series and RZ10 Series in this chapter are the PCBs located on the rear of the machine.

The safety precautions in the chapter are duplicates of the RZ9 Series.

The safety precautions are duplicated in this chapter as they are important.

CAUTION

[Handling of Lithium Battery]

- Never fail to follow the following instructions when you discard the used lithium battery.

1. Never let the battery short-circuited.

If the (+) and (-) terminals contact each other or metal materials, the battery will be short-circuited.

If the batteries are collected and stored inorderly or one upon another, the above-mentioned case will occur.

- DANGER -

If the battery is short-circuited, it will heat up and may in some cases explode into fire.

2. Never heat up the battery.

- DANGER -

If you heat the battery up to more than 100 degrees Celsius or put it into the fire, it may burn dangerously or explode.

3. Never disassemble the battery or press it into deformation.

- DANGER -

If you disassemble the battery, the gas pouring out of the inside may hurt your throat or the negative lithium may heat up into fire.

If the battery is pressed into deformation, the liquid inside may leak out of the sealed part or the battery may be short-circuited inside an explode.

4. Never fail to keep the battery out of reach of children.

If you put the battery within reach of children, they may swallow it down.

Should they swallow the battery, immediately consult the doctor.

[Replacement of the Lithium Battery]

1. The lithium battery must be replaced by a trained and authorized service technician.
2. The battery must be replaced only with the same or equivalent type recom- mended by the manufacturer.
3. Discard used batteries according to the manufacturer instructions.

Perchlorate Material-special handling may apply,

See www.dtsc.ca.gov/hazardouswaste/perchlorate

This product may contain certain substances which are restricted when disposed.

Therefore, be sure to consult your contracted service dealer.

Warning

!! WARNING !!

Important Safety Precautions

1. Always disconnect electrical supply before placing hands in the machine.

I. To avoid injuries:
Be sure to disconnect the electrical power before disassembling, assembling, or when making adjustments on the machine.

II. Protection of the machine:
Make sure to turn OFF the power to the machine before plugging or unplugging the electrical connectors, or when connecting a Meter.

2. Always connect electrical connectors firmly.

I. To avoid electrical failure:
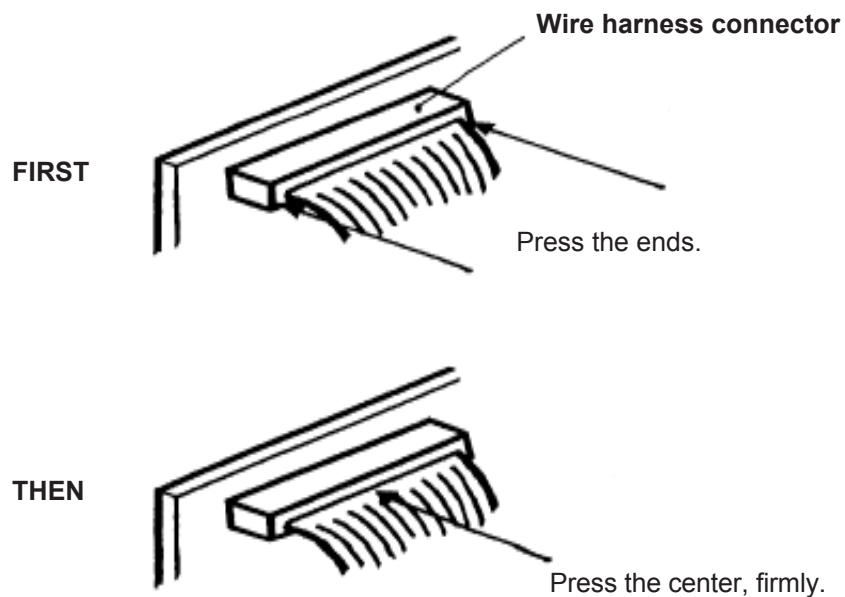The connectors must be connected firmly together and onto the PCBs.
Press on the ends of the connectors and then on the middle to ensure a firm fit.

II. Protection of the electrical components:
The electrical components may be damaged due to short circuits caused by a loose connector.

Wire harness connector

FIRST

Press the ends.

THEN

Press the center, firmly.

1. Work Precautions

When conducting maintenance work, be careful to avoid injury caused by springs or the sharp edges of sheet metal.

(1) Inspection

If you discover any defects or problems during an inspection, fix the problems or if necessary take steps such as replacing a part.
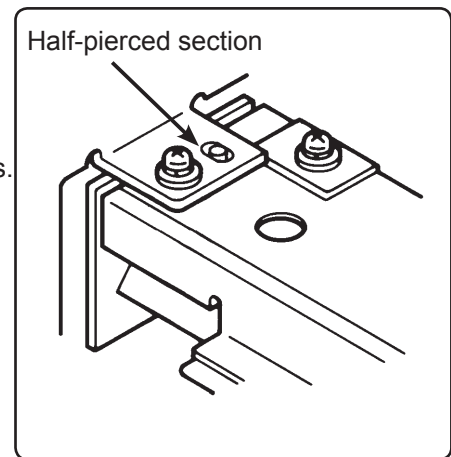
(2) Removal

Check the problem area. At the same time, examine the cause of the problem and determine whether the part needs to be removed or disassembled. Next proceed according to the procedures presented in the Technical Manual. In cases where, for example, it is necessary to disassemble areas with large numbers of parts, parts which are similar to each other, or parts which are the same on the left and right, sort the parts so that you do not mix them up during reassembly.

(1) Carefully sort the removed parts.

(2) Distinguish between parts which are being replaced and those which will be reused.

(3) When replacing screws, etc., be sure to use the specified sizes.

Half-pierced section

(3) Assembly and Installation

Unless specified otherwise, perform the removal procedures in reverse during assembly and installation. In cases where protrusions or holes are provided to assist in positioning parts, use them for accurate positioning and securing.

(Protrusions and holes for positioning parts ➝ Half pierced section)

(4) Always connect electrical connectors firmly.

1) To avoid electrical failure:
The connectors must be connected firmly together and onto the PCBs.

2) Protection of the electrical components:
The electrical components may be damaged due to short circuits caused by a loose connector.

(5) Warning on the disposal of LCD Touch Panel.

The back light tube of LCD of the Touch Panel on this Model contains mercury which must be recycled or disposed of as hazardous waste.

2. Opening the PCB Brackets

Mechanical Control PCB Bracket

1. Turn OFF the machine power and unplug the power cord.
2. Remove the Rear cover.
3. Remove 4 mounting screws and gently swing open the Mechanical control PCB bracket.

Power Supply Unit Bracket

1. Turn OFF the machine power and unplug the power cord.
2. Remove the Rear cover.
3. Remove 3 mounting screws and gently swing open the Power supply unit bracket.

< RZ10 Rear View >

Screw

Power Supply Unit

Mechanical Control PCB

Screw

NeoROSA PCB

PCB Brackets opened.

3. Machine Firmware Download

Refer to the firmware downloading procedure given for EZ5 Series on the EZ Series technical manual (revision 1.1 - Chapter 19).

The CF Card slot and USB memory stick slot looks a little bit different in shape, but the procedure itself is the same.
The 3 LED blinking status during and after the firmware downloading are the same to EZ5.
The error status LED blinking chart is also same to the EZ5.

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CHAPTER 2: MACHINE SUMMARY

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NOTE

The major difference between RZ9 Series and RZ10 Series in this chapter are the Machine Specification.

1. Machine Specification

1) Optional Accessories for RZ1070 & RZ1090.

Optional Accessories

A variety of optional accessories are available to enhance the capabilities of the machine.
For details about the optional accessories, see your dealer (or authorized service representative).

◆ **Auto Document Feeder AF-VI**

Feed up to 50 sheets of originals automatically.

◆ **Auto Document Feeder DX-1**

Feed up to 50 sheets of originals automatically. Both sides of original can be scanned automatically.

◆ **Color Print Drum (Cylinder)**

Simply change the Drum (Cylinder) to print in multiple colors (colours). (Case included)

◆ **Auto-control Stacking Tray II**

The Receiving Tray Paper Guides/Stopper are automatically adjusted according to paper and reproduction size.

◆ **Wide Stacking Tray**

This unit can take paper up to 340 mm × 555 mm ($13^6/_{16}$" × $21^{14}/_{16}$") in size.

◆ **Key Card Counter**

With a single button press, shows the numbers of printed copies and consumed masters within a given period of time. This can help you manage costs.

◆ **Job Separator**

With the Programed Printing function, allows the machine to print and sort into groups separated by tape.

◆ **Document Storage Card DM-128CF**

A Storage Card for using the Storage Memory function.

◆ **RISO Controller IS300**

A custom controller enabling the machine to be used as a network-connected PostScript 3 printer.

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2) Specification: RZ1070

RISO RZ1070

Master-making/printing methods	High-speed digital master-making/full automatic stencil printing
Original Type	Book (10 kg (22 lb) or less), sheet
Original Size (max./min.)	When using the Glass Platen : 50 mm × 90 mm ($1^{15}/_{16}$" × $3^9/_{16}$") - 310 mm × 432 mm ($12^3/_{16}$" × 17") When using Auto Document Feeder AF-VI (option) : 100 mm × 148 mm ($3^{15}/_{16}$" × $5^{13}/_{16}$") - 310 mm × 432 mm ($12^3/_{16}$" × 17") When using Auto Document Feeder DX-1(option) : 105 mm × 128 mm ($4^1/_8$" × $5^1/_{16}$") - 297 mm × 432 mm ($11^{11}/_{16}$" × 17")
Original Paper Weight	When using the Glass Platen : 10 kg (22 lb) or less When using the Auto Document Feeder AF-VI : 50 g/m² (13-lb bond) - 128 g/m² (34-lb bond) When using Auto Document Feeder DX-1 (option) : Single-sided feeding: 40g/m² (11-lb bond) - 128g/m² (34-lb bond) Duplex-sided feeding: 52g/m² (14-lb bond) - 105g/m² (28-lb bond))
Print Paper Size (max./min.)	100 mm × 148 mm ($3^{15}/_{16}$" × $5^{13}/_{16}$") - 320 mm × 432 mm ($12^{10}/_{16}$" × 17")* *Up to 555 mm ($21^{14}/_{16}$") of vertical paper dimension may be used.
Paper Supply Capacity	1000 sheets (64 g/m² (17-lb bond))
Print Paper Weight	46 g/m² (12-lb bond) - 210 g/m² (110-lb index)
Image Processing mode	Line, Photo, Duo, Pencil
Master-making Time	Approx. 20 seconds (for A4/landscape/100% reproduction ratio)
Printing Area (max.)	291mm × 413mm ($11^{15}/_{32}$" × $16^1/_4$")
Print Reproduction Ratio	Zoom : 50 - 200% Standard reproduction ratio (enlargement) : 163%, 141%, 122%, 116% Standard reproduction ratio (reduction) : 87%, 82%, 71%, 61% Margin+ : 90 - 99 %
Print Speed	Approx. 60 - 180 sheets per minute (control panel: five steps variable, touch panel: 180 ppm)
Print Position Adjustment	Vertical : ±15 mm (±$^{19}/_{32}$") Horizontal : ±10 mm (±$^3/_8$")
Ink Supply	Full automatic (1000 ml per cartridge)
Master Supply/Disposal	Full automatic (approx. 220 sheets per roll)
Master Disposal Capacity	100 sheets
User Interface	LCD Touch Panel with Progress Arrow indicators, front-side operation
Optional Accessories	Auto Document Feeder AF-VI, Auto Document Feeder DX-1, Color Print Drum (Cylinder), Auto-Control Stacking Tray, Wide Stacking Tray, Key Card Counter, Job Separator, Document Storage Card DM-128CF, RISO Controller IS300
Power Source	RZ1070A : 100V-240V AC, 50/60Hz <2.2-5.0A> RZ1070E : 220V-240V AC, 50/60Hz <2.2A>
Dimensions	When in use : 1415 mm(W) × 705 mm(D) × 665 mm(H) ($55^{23}/_{32}$"(W) × $27^3/_4$"(D) × $26^3/_{16}$"*(H)) When in storage : 780 mm(W) × 705 mm(D) × 665 mm(H) ($30^{23}/_{32}$"(W) × $27^3/_4$"(D) × $26^3/_{16}$"*(H))

Weight[*1]	Approx. 116 kg (256 lb)
Safety Standard	IEC-60950-1 compliant, Indoor, pollution degree 2[*2], At altitudes of 2000m or lower

Note:

• Please note that due to improvements and changes to the machine, some images and explanations in this manual may not correspond to your machine.

• The specifications are subject to change without prior notice.

*1 The weight does not include Ink and Master.

*2 The pollution degree of the usage environment due to dirt and dust in the air. Degree "2" corresponds to a general indoor environment.

3) Specification: RZ1090

Specifications

RISO RZ1090

Master-making/printing methods	High-speed digital master-making/full automatic stencil printing
Original Type	Book (10 kg (22 lb) or less), sheet
Original Size (max./min.)	When using the Glass Platen : 50 mm × 90 mm ($1^{15}/_{16}$" × $3^9/_{16}$") - 310 mm × 432 mm ($12^3/_{16}$" × 17") When using Auto Document Feeder AF-VI (option) : 100 mm × 148 mm ($3^{15}/_{16}$" × $5^{13}/_{16}$") - 310 mm × 432 mm ($12^3/_{16}$" × 17") When using Auto Document Feeder DX-1(option) : 105 mm × 128 mm ($4^1/_8$" × $5^1/_{16}$") - 297 mm × 432 mm ($11^{11}/_{16}$" × 17")
Original Paper Weight	When using the Glass Platen : 10 kg (22 lb) or less When using the Auto Document Feeder AF-VI : 50 g/m^2 (13-lb bond) - 128 g/m^2 (34-lb bond) When using Auto Document Feeder DX-1 (option) : Single-sided feeding: 40g/m^2 (11-lb bond) - 128g/m^2 (34-lb bond) Duplex-sided feeding: 52g/m^2 (14-lb bond) - 105g/m^2 (28-lb bond))
Print Paper Size (max./min.)	100 mm × 148 mm ($3^{15}/_{16}$" × $5^{13}/_{16}$") - 320 mm × 432 mm ($12^{10}/_{16}$" × 17")* *Up to 555 mm ($21^{14}/_{16}$") of vertical paper dimension may be used.
Paper Supply Capacity	1000 sheets (64 g/m^2 (17-lb bond))
Print Paper Weight	46 g/m^2 (12-lb bond) - 210 g/m^2 (110-lb index)
Image Processing mode	Line, Photo, Duo, Pencil
Master-making Time	Approx. 20 seconds (for A4/landscape/100% reproduction ratio)
Printing Area (max.)	291mm × 425mm ($11^{15}/_{32}$" × $16^{23}/_{32}$")
Print Reproduction Ratio	Zoom : 50 - 200% Standard reproduction ratio (enlargement) : 163%, 141%, 122%, 116% Standard reproduction ratio (reduction) : 87%, 82%, 71%, 61% Margin+ : 90 - 99 %
Print Speed	Approx. 60 - 180 sheets per minute (control panel: five steps variable, touch panel: 180 ppm)
Print Position Adjustment	Vertical : ±15 mm (±$^{19}/_{32}$") Horizontal : ±10 mm (±$^3/_8$")
Ink Supply	Full automatic (1000 ml per cartridge)
Master Supply/Disposal	Full automatic (approx. 215 sheets per roll)
Master Disposal Capacity	100 sheets
User Interface	LCD Touch Panel with Progress Arrow indicators, front-side operation
Optional Accessories	Auto Document Feeder AF-VI, Auto Document Feeder DX-1, Color Print Drum (Cylinder), Auto-Control Stacking Tray, Wide Stacking Tray, Key Card Counter, Job Separator, Document Storage Card DM-128CF, RISO Controller IS300
Power Source	RZ1090U : 100V-120V AC, 50/60Hz <5.0A>

Dimensions	When in use : 1415 mm(W) $\times$ 705 mm(D) $\times$ 665 mm(H) ($55^{23}/_{32}$"(W) $\times$ $27^3/_4$"(D) $\times$ $26^3/_{16}$"*(H)) When in storage : 780 mm(W) $\times$ 705 mm(D) $\times$ 665 mm(H) ($30^{23}/_{32}$"(W) $\times$ $27^3/_4$"(D) $\times$ $26^3/_{16}$"*(H))
Weight[*1]	Approx. 116 kg (256 lb)
Safety Standard	IEC-60950-1 compliant, Indoor, pollution degree 2[*2], At altitudes of 2000m or lower

Note:

• Please note that due to improvements and changes to the machine, some images and explanations in this manual may not correspond to your machine.

• The specifications are subject to change without prior notice.

*1 The weight does not include Ink and Master.

*2 The pollution degree of the usage environment due to dirt and dust in the air. Degree "2" corresponds to a general indoor environment.

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CHAPTER 9: PRINT DRUM SECTION

Contents

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NOTE

The major difference between RZ9 Series and RZ10 Series in this chapter is the RF-Tag Antenna module.

1. RF-Tag Antenna module

RF-Tag Antenna Module on the **RZ9** Print Drum

Antenna

RF-Tag Antenna is changed to EZ Type.

RF-Tag Antenna Module on the **RZ10** Print Drum

Antenna

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CHAPTER 10: CLAMP UNIT

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NOTE

The major difference between RZ9 Series and RZ10 Series in this chapter is the Clamp Unit.

1. Clamp Unit

Clamp Unit on the **RZ9**

FRONT view

REAR view

Clamp opening cam

The shape of the Clamp opening cam is different

Clamp Unit on the **RZ10**

FRONT view

REAR view

Clamp opening cam

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CHAPTER 15: MASTER MAKING SECTION

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NOTE

The major difference between RZ9 Series and RZ10 Series in this chapter are the TPH, RF-Tag Antenna, Cutter Cover Assembly and Master-Making-PCB.

1. TPH

Thermal Print Head (TPH) on the **RZ9**

Toshiba TPH

The manufacturer is different

Thermal Print Head (TPH) on the **RZ10**

Kyocera TPH

2.   RF Tag Antenna

RF Tag Antenna on the **RZ9**

Antenna

Changed to EZ Type

RF Tag Antenna on the **RZ10**

FRONT view

REAR view

Antenna

3. Cutter Cover Assembly

Cutter cover assembly on the **RZ9**

Master making unit upper cover **set sensor**

Master making unit upper cover set sensor

is changed to

Master making unit upper cover safety switch

Cutter cover assembly on the **RZ10**

Master making unit upper cover **safety switch**

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4. Master Making PCB

Master making PCB on the **RZ9**

Master Making PCB on the **RZ10**

5. Master Positioning Sensor Sensitivity Adjustment

Following adjustments needs to be done when the Master Making PCB is replaced.

1. Pull out the Master making unit. If master material is set in the unit, rewind the master material back on the master roll, so no master is under the Master positioning sensor.

2. Detach the Master-making unit front cover.

3. With the machine power ON, using a multi-meter, measure the voltage between the contact hole TP7 (GND) and TP8 (+).

4. Confirm that the measured voltage is between 1.0 volt plus/minus 0.2 volts (0.8 volts to 1.2 volts).

5. If the voltage is not within the above given range, slowly and gently rotate both volume dials VR1 and VR2 all the way in the clockwise direction until the dial stops.

6. Slowly rotate the dial VR1 (rough adjustment dial) in the counter-clockwise direction until the voltage becomes about 2.0 volts.
   < This procedure is equivalent to using the Pin 1 (+) and Pin 3 (-) of the CN6 connector in the conventional method.>

7. Then slowly rotate the dial VR2 (fine adjustment dial) in the counter-clockwise direction until the voltage comes down to the correct voltage setting within the range of 0.8 volts to 1.2 volts.
   < If possible, aim for 1.0 volt. >

Connector (CN6)

TP8

TP7

VR2   VR1

Master Making PCB

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CHAPTER 16: PANEL MESSAGE

Contents

1. Explanation of Panel Messages

Overview of the messages

1) Error-code displays

If an error occurs, an error message is displayed on the LCD panel of the machine, in Error-code display and in graphics, to indicate the machine problem to the operator.

Error-code displays consist of [error type] indicating the type of error and [error-point number] indicating the error situation.

Example:

T01-520   T01: Error type and 520: Error point

1. Error type

The order of error priority is as specified below.

Error Type	Description
T	Serviceman-call error
A	Jam error
B	Option error
C	Consumable error
D	Set check error
E	Warning (Serviceman call)
F	Warning (Other)
H	Parameter value input
J	Paper/Original jam error

2. Error point

The error-point classification are as specified below.

Error Type	Description
0XX	System (hardware, software, communication), Operation panel
1XX	Scanning section (scanner, AF), image processing
2XX	Master making section
3XX	Master-disposal section
4XX	Paper-feed/ejection section
5XX	Print-drum area
6XX	Printing adjustment section (vertical, horizontal, density)
7XX	Optional accessories

2. List of Error Types

Error Type	Description
T01	Main motor lock
T02	Elevator motor lock
T03	Clamp motor lock
T04	Overflow
T05	Print-positioning pulse-motor lock
T06	Print drum horizontal pulse motor lock
T09	Sorter error
T11	Print pressure pulse motor lock
T12	Master disposal area motor lock
T13	Cutter motor lock
T14	Flatbed error
T15	AF error
T17	Solenoid counter not connected
T18	Drum-lock solenoid lock
T19	Thermal-pressure motor lock
T20	Paper-ejection-section motor lock
T24	Inking motor lock
T25	No battery error
T89	Master compression plate error
T91	Operation panel EEPROM error
T92	Drum EEPROM write error
T93	NET-D hardware error
T94	Call service error: TPH
T95	FeRAM error
T96	Data not input
T97	PC card access error
T98	Hardware error
T99	Software error

Error Type	Description
A01	Master feed error
A02	Master loading error
A04	Master detected on print drum error
A05	Master detected in master-disposal area
A06	Check paper-feed tray
A07(J)	Paper-feed error
A08(J)	Paper jam on print drum
A09(J)	Paper-ejection error
A10(J)	AF original feed error
A16	Awaiting for the master to be removed from the drum
A17	Cutter error
A34	Requesting for master to be reset

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Error Type	Description
B01	Keycard counter: No card
B02	Sorter: Call service error
B03	Sorter: Jam error
B04	Sorter: Door open error
B05	Sorter: Error (other)
B21	Hold memory: Read/Write error
B22	Job separator: Power OFF
B23	Job separator: No tape
B24	Job separator: Tape jam
B25	Sorter: Tray full error
B26	Sorter: Paper remaining on tray error
B27	Sorter: Stapler error
B28	Sorter: Size error
B29	USB Memory: No compatibility (w/ USB HUB)
B30	USB Memory: No compatibility
B31	Linked printer: Data communication error
B32	Network cable not connected
B33	IP address setup error
B34	Linked printer: No toner
B35	Linked printer: Call service error
B38	USB Memory: Fault create a file
B39	USB Memory: No access

Error Type	Description
C01	Replace ink cartridge
C02	Replace master roll
C03	Master disposal box full
C04	No paper on the paper feed tray

Error Type	Description
D01	Print drum not set
D02	Incorrect print drum
D03	Ink cartridge not set
D04	Incorrect ink cartridge
D05	Master not set
D07	Master-disposal box not set
D08	Master making unit not set
D09	Master making unit cover not closed
D11	Front cover not closed
D13	Rear cover not closed
D17	Incorrect master roll
D18	Print drum is ready for removal
D19	Master making unit is ready for removal
D22	Print drum removal command
D23	AF cover not closed

Error Type	Description
E01	Replace battery
E02	Maintenance call

Error Type	Description
F01	No master on print drum
F02	Master image larger than paper size: 1
F03	Multi-up printing - Incorrect paper size
F04	User Control: Reach to copy count limit
F05	Print quantity less than the minimum print quantity setting
F08	Auto tray selection: Wrong paper size
F10	Master image larger than paper size: 2
F12	Auto tray selection: Irregular size original
F15	Auto control paper receiving tray: Large paper remaining on the tray
F17	Incorrect print drum size
F18	Incorrect reproduction ratio
F24	Auto reproduction: Error between original size and paper size
F30	Multiple feed check
F31	Auto control paper receiving tray: Paper guide fence error
F32	Storage data: Storage area full
F33	USB Memory: Capacity is full
F37	Book mode: AF cannot be used
F43	AF cannot be used in book mode
F44	Auto reproduction size: Error between original size and paper size
F45	Linked printer error
F47	Linked printer error - No paper
F48	Multi-Up: Wrong original size
F49	Multi-Up: No original
F52	Linked printer error - Job interrupted
F58	Book editing not available with AF (NET-D Card Initializing)
F60	Master-making confirmation when linked printer is selected (when print quantity = 0)
F61	Linked printer: Wrong paper size
F62	Linked printer auto selection: Linked printer error
F63	Linked printer: Auto tray selection not available for irregular size original
F64	Selected function not available while processing print data from PC
F65	Scan mode: Auto page size selection not available for irregular size original
F66	Linked printer: Saddle-stitch error
F67	Linked printer: Rotation sort error
F73	Linked printer: Auto tray selection not available with selected reproduction ratio
F74	High speed printing: Printer temperature is too low for 180ppm high speed printing
F78	Editor: Stage cover is opened
F79	Editor: No original during re-scanning
F85	External CI: Scanning not possible with external CI not connected
F86	Auto tray selection: Tray cannot be selected with selected reproduction ratio
F87	Auto tray selection: Multi-Up not possible
F88	Auto tray selection: 2-Up selection error
F89	Interposer mode: Wrong paper size
F90	Stock management (ink)
F91	Stock management (master)
F92	Original size too large
F93	Reproduction size: Larger than the master-making size
F94	Protect mode: Discard current master
F95	Protect mode: Confirmation
F96	Total Count Volume
F97	Count Charge

Error Type	Description
H01	Parameter input (ink)
H04	Parameter input (master)

3. Detail List of Panel Messages

Service call errors (T)**

Error Type	T01 [Main motor lock]
LCD Display Description	T01-xxx !!System Error!! Press Reset Key If Recovery has Failed, Call Service
To reset display	Press the <RESET> key.
Error Point	**Error Conditions**
520	Main motor lock detection due to The Main motor FG sensor count reduced to 50% of the set speed. (The detection is not made for the first 200 milliseconds from the Main motor movement.)
521	The position-B sensor status does not change even after 3,033 pulses after the Main motor activates.
524	The Clamp unit is not at the home position while the Print drum is in operation (except during master disposal).
537	The Print drum failed to stop at position-B.
538	The Print drum is not locked during operation. (Drum lock sensor: OFF)

Error Type	T02 [Elevator motor lock]
LCD Display Description	T02-xxx !!System Error!! Press Reset Key If Recovery has Failed, Call Service
To reset display	Press the <RESET> key.
Error Point	**Error Conditions**
400	Both the Upper and Lower limit sensors are ON at the same time.
401	Overload current was detected in the Elevator motor.
404	The Lower limit sensor does not go OFF within 2 seconds after the Elevator motor operates in the raising direction from the lower limit position.
405	The Upper limit sensor does not go ON within 12 seconds after the Elevator motor operates in the raising direction.
406	The Upper limit sensor does not go OFF within 2 seconds after the Elevator motor operates in the lower direction from the upper limit position.
407	The Lower limit sensor does not go ON within 12 seconds after the Elevator motor operates in the lowering direction.
408	The Upper limit sensor is OFF continuously for over 2 seconds during operation of the elevator servo action to raise the Feed tray.

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Error Type	T03 [Clamp motor lock]	
LCD Display Description	T03-xxx !!System Error!! Press Reset Key If Recovery has Failed, Call Service	
To reset display	Press the <RESET> key.	
Error Point	Error Conditions	
500	The Clamp sensor A is OFF after the completion of the Clamp unit initialization or home positioning movement.	
501	The Clamp sensor B does not change within 1 second from the time the Clamp motor operates in the forward direction.	
502	The Clamp sensor B does not change within 1 second from the time the Clamp motor operates in the reverse direction.	
503	The Clamp sensor A does not go ON within 3 seconds when the Clamp unit makes initialization movement.	
504	At the start of the Clamp plate open/close action, the detection sequence of clamp sensors A & B are abnormal.	
505	At the start of print drum Position-A compensation movement, the detection sequence of clamp sensors A & B are abnormal.	
506	At the start of Clamp unit Home positioning movement, the detection sequence of clamp-sensors A & B are abnormal.	
507	The Clamp sensor A is ON after the clamp release action is completed.	
508	The Clamp sensor A is ON after the A-position compensating movement is completed.	
545	The Clamp unit is not in the home position while the Print drum is in movement (cause due to the Clamp motor).	

Error Type	T04 [Ink overflow]	
LCD Display Description	T04-xxx !!System Error!! Press Reset Key If Recovery has Failed, Call Service	
To reset display	Press the <RESET> key after correcting the ink overflow condition. (No ink on the ink overflow sensor.)	
Error Point	Error Conditions	
513	The Overflow sensor is ON for a set number of times in succession during the 10-millisecond-interval overflow-sensor check.	

Error Type	T05 [Vertical print positioning pulse motor lock]
LCD Display Description	T05-xxx !!System Error!! Press Reset Key If Recovery has Failed, Call Service
To reset display	Press the <RESET> key. (Overflow sensor must be OFF)
Error Point	Error Conditions
603	The Vertical print positioning HP sensor does not switch ON even when the Vertical print positioning pulse motor activated in the image-down direction for regulation time during vertical home positioning movement.
604	The Vertical print positioning HP sensor does not switch OFF even when the Vertical print positioning pulse motor activated in the image-up direction for regulation time during vertical home positioning movement.
605	Even though the Vertical print positioning pulse motor stopped according to the Vertical print positioning sensor detection, the stopping position does not correspond with the programmed position. (GA control error).
612	The Print positioning key is pressed with vertical print position information undefined.
619	The Vertical print positioning pulse motor does not end its operation within the set period during the recovery movement to rotate -98 pulses.
632	The Vertical print positioning pulse motor does not end its operation within the set period in the pulse count stop mode, or in the sensor stop mode after the actuator is detected by the sensor.

Error Type	T06 [Print drum horizontal pulse motor lock]
LED Display Error position	T06-xxx !!System Error!! Press Reset Key If Recovery has Failed, Call Service
To reset display	Press the <RESET> key or turn the machine power OFF and back ON.
Error Point	Error Conditions
607	The actuator plate does not escape from the horizontal HP sensor when the print drum slides to the right during the horizontal HP movement.
608	The actuator plate does not block the horizontal HP sensor when the print drum slides to the left during the horizontal HP movement.
609	Even though the horizontal positioning pulse motor stopped after the sensor stop mode, the sensor detection status did not match with the programed status.
611	Time-out error during print drum horizontal movement.
617	Horizontal movement system information error.
618	The clamp unit is not in its HP position when the print drum starts its horizontal movement.
633	The horizontal positioning pulse motor does not end its operation within the set period in the pulse count stop mode, or in the sensor stop mode after the actuator is detected by the sensor.

Error Type	T09 [Sorter error]
LCD Display Description	T09-xxx !!System Error!! Press Reset Key If Recovery has Failed, Call Service
To reset display	Turn the power OFF and ON.
Error Point	Error Conditions
003	Sorter communication error.
700	Sorter communication error: The /CTS does not change to LOW even after 3 seconds from power ON.
701	Sorter communication error: The machine status information is not received from the sorter even after 0.2 seconds from the initialization command.
712	Sorter communication error: The retry command was not received.
720	Sorter communication error: The retry command was not received twice consecutively.

Error Type	T11 [Print pressure pulse motor lock]
LCD Display Description	T11-xxx !!System Error!! Press Reset Key If Recovery has Failed, Call Service
To reset display	Press the <RESET> key to recovery operation (Return to home position)
Error Point	Error Conditions
600	The Pressure HP sensor does not switch ON within 3.9 seconds after the Pressure control pulse motor activated towards higher pressure during home positioning operation.
601	The Pressure HP sensor does not switch OFF within 4.6 seconds after the Pressure control pulse motor activated towards lower pressure during home positioning operation.
602	Even though the Pressure control pulse motor stopped according to the Pressure HP sensor detection, the stopping position does not correspond with the programmed position. (GA control error).
614	The Pressure control pulse motor does not complete its movement even after 1.2 time the set period passed from the print pressure HP movement to move -1000 pulses.
631	The Pressure control pulse motor does not end its operation within the set period in the pulse count stop mode, or in the sensor stop mode after the actuator after the actuator is detected by the sensor.

Error Type	T12 [Master disposal area motor lock]
LCD Display Description	T12-xxx !!System Error!! Press Reset Key If Recovery has Failed, Call Service
To reset display	Press the <RESET> key.

Error Point	Error Conditions
300	Overload current was detected in the Master removal motor.
301	The Master compression motor lock when moving compression plate up.
305	The Master compression HP sensor does not go ON within 7.5 seconds after the Master compression motor operates in the return direction.
306	The Master compression sensor does not go OFF within 2 seconds after the Master compression motor operates in the compress direction.
307	The Master compression plate maximum position is not detected within 7.5 seconds after the Master compression motor operates in the compress direction.
309	The Compression FG sensor status on the Master compression motor did not change for 50 consecutive times during 10 millisecond polling.
316	The Master removal motor FG sensor count dropped to 50% of the set speed. (The speed check starts 200 milliseconds after the activation of the motor.)

Error Type	T13 [Cutter motor lock]
LCD Display Description	T13-xxx !!System Error!! Press Reset Key If Recovery has Failed, Call Service
To reset display	Press the <RESET> key.

Error Point	Error Conditions
203	The Cutter HP switch does not go OFF within 100 milliseconds after the Cutter motor is activated. (Rotary cutter only)
204	The Cutter HP switch does not go ON within 300 milliseconds after the Cutter motor is activated. (Rotary cutter only)
205	The Master positioning sensor is ON when the Print drum rotates through the preset angle following master cutting.
221	The Cutter HP switch and the Cutter stop position switch both go ON at same time. (Shuttle cutter only)
222	The Cutter HP switch does not go ON within 450 milliseconds after the cutter home positioning operation started.
231	The Cutter HP switch does not go OFF within 500 milliseconds after the Cutter motor is activated. (Shuttle cutter only)
232	The Cutter stop switch does not go ON within 2 seconds after the Cutter motor is activated. (Shuttle cutter only)
233	The Cutter stop switch does not go OFF within 500 milliseconds after the cutter home positioning operation started from cutter stop position. (Shuttle cutter only)
234	The Cutter HP switch does not go ON within 2 seconds after the cutter home positioning operation started. (Shuttle cutter only)

Error Type	T14 [Flatbed error]
LCD Display Description	T14-xxx !!System Error!! Press Reset Key If Recovery has Failed, Call Service
To reset display	Press the <RESET> key.
Error Point	Error Conditions
112	The FB/AF HP sensor does not go OFF within given time.
113	The FB/AF HP sensor does not go ON within given time.
114	Incorrect main-unit data.
115	The scanner operation is not completed within the set time.
116	Time-out error for black shading compensation.
117	Time-out error for white shading compensation.
123	Offset adjustment not completed within set time.
124	Gain adjustment not completed within set time.
125	Offset adjustment not completed.
126	Gain adjustment not completed.
135	Malfunction detected during offset adjustment.
136	Malfunction detected during gain adjustment.
137	Malfunction detected during black shading compensation.
138	Malfunction detected during white shading compensation.
170	Even though the FB read pulse motor stopped according to the sensor detection, the stopping position does not correspond with the programmed position. (GA control error).

Error Type	T15 [AF error]
LCD Display Description	T15-xxx !!System Error!! Press Reset Key If Recovery has Failed, Call Service
To reset display	Turn the power OFF and ON.
Error Point	**Error Conditions**
100	The AF read sensor adjustment error.
101	AF-EEPROM error.
110	ABC (auto-base-control) timeout. The original does not move from the ABC scanning position on the AF unit.
111	Operation command was made to the AF unit without 24 volts supplied to the AF unit.
130	Time-out error in receiving reply from the AF unit after command signal was sent from the Riso printer to the AF unit.
131	Riso printer received an undefined command from the AF unit.
132	Riso printer detected communication sequence error from the AF unit.
133	Communication error with AF unit (ACK, NAK, or receiving channel error).
134	Riso printer could not send command to the AF unit within the set time.
161	AF unit not connected.

Error Type	T17 [Solenoid counter not connected]
LCD Display Description	T17-xxx !!System Error!! Press Reset Key If Recovery has Failed, Call Service
To reset display	Connect the Solenoid counter.
Error Point	**Error Conditions**
020	The Solenoid counter is not connected.

Error Type	T18 [Drum-lock-solenoid lock]
LCD Display Description	T18-xxx !!System Error!! Press Reset Key If Recovery has Failed, Call Service
To reset display	Press the <RESET> key.
Error Point	**Error Conditions**
531	The Print drum lock sensor is still ON even after 100 milliseconds after the Print drum lock solenoid is activated.

Error Type	T19 [Thermal-pressure motor lock]
LCD Display Description	T19-xxx !!System Error!! Press Reset Key If Recovery has Failed, Call Service
To reset display	Press the <RESET> key.
Error Point	Error Conditions
207	The Thermal pressure sensor does not go OFF within 2 seconds after the Thermal pressure motor activates in the decompressing direction, or during home positioning operation.
208	The Thermal pressure sensor does not go ON within 2 seconds after the Thermal pressure motor activates in the decompressing direction.
216	The Thermal pressure sensor does not go OFF within 2 seconds after the Thermal pressure motor activates in the compressing direction.
217	The Thermal pressure sensor does not go ON within 2 seconds after the Thermal pressure motor activates in the compressing direction.

Error Type	T20 [Paper-ejection-section motor lock]
LCD Display Description	T20-xxx !!System Error!! Press Reset Key If Recovery has Failed, Call Service
To reset display	Press the <RESET> key.
Error Point	Error Conditions
414	The paper ejection wing HP sensor status does not change within set time after the Paper ejection wing motor activated for the wing home position movement.
415	The paper ejection wing HP sensor does not change from OFF to ON even though the Paper ejection wing pulse motor is activated for a given time.
416	Overload current was detected in the Paper ejection motor.
437	The Paper ejection motor FG sensor pulse count dropped to 50% of the set speed. (The detection starts 200 milliseconds after the Paper ejection motor is activated.)
442	Though the Paper ejection wing pulse motor stopped correctly at the sensor stop mode, the stopping position does not correspond with the programmed position.
456	The Paper ejection wing pulse motor does not end its operation within the set period in the pulse count stop mode, or in the sensor stop mode after the actuator is detected by the sensor.

Error Type	T24 [Inking motor lock]
LCD Display Description	T24-xxx !!System Error!! Press Reset Key If Recovery has Failed, Call Service
To reset display	Press the <RESET> key.
Error Point	Error Conditions
539	The Inking motor FG sensor status does not change within 200 milliseconds after the Inking motor is activated.

Error Type	T25 [Replace Battery]
LCD Display Description	T25-xxx !!Low Battery!! Call Service
To reset display	Replace the battery.
Error Point	Error Conditions
026	The Battery voltage is too low when the power is turned ON. (Readjust the machine clock after replacing the battery.)

Error Type	T89 [Master compression plate: incorrect position]
LCD Display Description	T89-xxx !!System Error!! Press Reset Key If Recovery has Failed, Call Service
To reset display	Turn the power OFF and ON.
Error Point	Error Conditions
350	The Clamp unit is in the lowered position and the Master compression plate is not in the HP position when the Print drum starts its movement. (This is to protect the machine parts.)

Error Type	T91 [Panel EEPROM error] or [RTC error]
LCD Display Description	T91-xxx !!System Error!! Press Reset Key If Recovery has Failed, Call Service
To reset display	Press the <RESET> Key.
Error Point	Error Conditions
013	Time data from RTC is incorrect
968	Panel EEPROM read error.
969	Panel EEPROM write error.
976	Panel EEPROM check-sum error.
977	Panel EEPROM verify error.

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Error Type	T92 [Drum EEPROM write error]
LCD Display Description	T92-xxx !!System Error!! Press Reset Key If Recovery has Failed, Call Service
To reset display	Press the <RESET> Key.
Error Point	Error Conditions
570	EEPROM on the Drum PCB is being accessed while the Print drum is in releasing action from the machine.

Error Type	T93 [NET-D hardware error]
LCD Display Description	T93-xxx !!System Error!! Press Reset Key If Recovery has Failed, Call Service
To reset display	Turn the power OFF and ON.
Error Point	Error Conditions
932	No reply from the NET-D network interface card while accessing to the network interface card.
933	No response from NET-D for 90 seconds during NET-D initialization.

Error Type	T94 [Call service error: TPH]
LCD Display Description	T94-xxx !!System Error!! Press Reset Key If Recovery has Failed, Call Service
To reset display	Turn the power OFF and ON.
Error Point	Error Conditions
225	TPH code does not match with the machine code when the power is turned ON with the Master making unit in operating position or when the Master making unit is inserted in operating position while the power is ON.

Error Type	T95 [FeRAM error]
LCD Display Description	T95-xxx !!System Error!! Press Reset Key If Recovery has Failed, Call Service
To reset display	Turn the power OFF and ON.
Error Point	Error Conditions
059	Machine serial-number information sent from SH PCB does not match with the machine serial number information in the MCTL PCB.

Error Type	T96 [Data not input]
LCD Display Description	T96-xxx !!System Error!! Press Reset Key If Recovery has Failed, Call Service
To reset display	Input the parameters using test mode.
Error Point	Error Conditions
171	The TPH resistance value not input.
172	The Scanner adjustment not completed.
433	The Paper width potentiometer setting is not completed.
569	Either the Print drum color information or Ink category information is still not input.
613	Print pressure data missing.
972	REv data storage area is not initialized.

Error Type	T97 [PC card access error]	
LCD Display Description	T97-xxx !!System Error!! Press Reset Key If Recovery has Failed, Call Service	
To reset display	Press the <RESET> Key.	
Error Point	Error Conditions	
939	PC card access error: PC card not set.	
940	PC card access error: PCMCIA card information error.	
941	PC card access error: CF card device error.	
942	PC card access error: Fail to create a file (Same file already exists).	
943	PC card access error: Not formatted.	
944	PC card access error: Media ID error.	
945	PC card access error: Media error (cannot access the PC card).	
946	PC card access error: Media error (not enough blank space available on CF card).	
990	PC card access error: Specified file not found on the selected drive.	
991	PC card access error: Accessed to the file not opened.	
992	PC card access error: File information folder is already in use.	
993	PC card access error: Incorrect setting on the readout address when sending data to the machine.	
994	PC card access error: Unsuccessful file deleting.	

Error Type	T98 [Hardware error]
LCD Display Description	T98-xxx !!System Error!! Press Reset Key If Recovery has Failed, Call Service
To reset display	Turn the power OFF and ON.

Error Point	Error Conditions
002	No reply from SH PCB. If the SH PCB signal is detected at machine power ON, but if the PCB communication terminates and T98-069 error is detected, the error point is rewrote to this T98-002 error message.
005	Hardware error
006	FRAM check-sum error
025	Defective RF PCB (Unsuccessful initial communication with RF PCB).
034	Unable to write on EEPROM on the machine. (Cannot access EEPROM).
035	CRC error on EEPROM on the machine (Defective EEPROM data).
038	Information between the PCB and EEPROM does not match.
039	Incorrect EEPROM.
051	Communication error with the touch-panel controller.
053	Unsuccessful data readout from the Memory setting (program, mode, user paper).
054	Unsuccessful data writing of the Memory setting (program, mode, user paper).
055	Machine code number sent from SH PCB does not match with that from the Mechanical control PCB.
063	Test mode setting is beyond the adjustable range.
064	Communication error between SH PCB and MCTL PCB.
065	Communication error between SH PCB and MCTL PCB (01) - on MCTL PCB side.
067	Communication error between SH PCB and MCTL PCB (03) - on MCTL PCB side.
068	Communication error between SH PCB and MCTL PCB (04) - on MCTL PCB side.
069	Communication error between SH PCB and MCTL PCB (05) - on MCTL PCB side.
070	Communication error between SH PCB and MCTL PCB (06) - on MCTL PCB side.

071	Communication error between SH PCB and MCTL PCB (07) - on MCTL PCB side.
072	Communication error between SH PCB and MCTL PCB (08) - on MCTL PCB side.
073	Communication error between SH PCB and MCTL PCB (09) - on MCTL PCB side.
074	Communication error between SH PCB and MCTL PCB (10) - on SH PCB side.
075	Communication error between SH PCB and MCTL PCB (11) - on SH PCB side.
076	Communication error between SH PCB and MCTL PCB (12) - on SH PCB side.
077	Communication error between SH PCB and MCTL PCB (13) - on SH PCB side.
078	Communication error between SH PCB and MCTL PCB (14) - on SH PCB side.
079	Communication error between SH PCB and MCTL PCB (15) - on SH PCB side.
080	Communication error between SH PCB and MCTL PCB (16) - on SH PCB side.
081	Communication error between SH PCB and MCTL PCB (17) - on SH PCB side.
082	Communication error between SH PCB and MCTL PCB (18) - on SH PCB side.
083	Communication error between SH PCB and MCTL PCB (19) - on SH PCB side.
098	Machine serial number information on EEPROM does not match with that of FRAM.
119	Defective image PCB (memory check error on the image processing IC).
120	Timeout on the scanner serial communication.
129	Defective scanner gate array PCB (memory check error on the gate array).
245	Time-out error on master transfer during master-making (related to Write pulse motor).
246	Time-out error on master transfer during master-making (related to Load pulse motor).
422	The light emittance from the Paper sensor (send) exceeded the maximum allowance during the Automatic Multiple Paper Feed Adjustment [paper sensor sensitivity adjustment] by Test Mode No.705.
423	The light emittance from the Paper sensor (send) exceeded the minimum allowance during the Automatic Multiple Paper Feed Adjustment [paper sensor sensitivity adjustment] by Test Mode No.705.
735	24V-OP does not go ON. (Possible broken Fuse for 24V-P area).
921	The USB controller chip is not responding when PC and printer is connected by USB cable.
934	Communication error between MCTL PCB and RF PCB. (on RF PCB side)

935	Communication error between MCTL PCB and RF PCB. (on MCTL PCB side)
937	Undefined serial number.
938	FRAM version down.
947	24V-A does not go ON. (Possible broken Fuse for 24V-A area).
948	24V-B does not go ON. (Possible broken Fuse for 24V-B area).
949	24V-A does not go OFF.
950	24V-B does not go OFF.
952	SH PCB flash memory check-sum error.
953	Unsuccessful writing on the SH PCB flash memory.
960	Unsuccessful readout from the SH PCB flash memory.
961	SH PCB flash memory unused.
978	Incorrect power ON command from MCTL PCB when machine power turned ON.
979	Abnormal flash memory setting on the SH PCB.
983	24V-C does not go ON. (Possible broken Fuse for 24V-C area).
984	24V-C does not go OFF.

Error Type	T99 [Software error]
LCD Display Description	T99-xxx !!System Error!! Press Reset Key If Recovery has Failed, Call Service
To reset display	Turn the power OFF and ON.
Error Point	Error Conditions
181	Timeout on Image processing time.

Jam errors (A**)

Error Type	A01 [Master feed error]
LCD Display Description	A01-xxx Master Miss-Feed Pull Out Master Making Unit and Rewind Master Roll, then Reset Master in Place
To reset display	Pull out the Master making unit, rewind the master and reinstall.
Error Point	Error Conditions
201	The Master positioning sensor does not go ON even after the Write pulse motor is activated during the master-positioning, master-cut, or master-loading operation.
202	The Master positioning sensor does not go OFF even when the Write pulse motor is reversed during the master-positioning or at start of master-making operation.
211	The Master positioning sensor is ON during standby.
214	The Master positioning sensor is ON at the start of master making.
215	Sensor stop position of the Write motor differs with programmed stop position.

Error Type	A02 [Master loading error]
LCD Display Description	A02-xxx Master Loading Error Pull Out Print Drum and Discard Master
To reset display	1. Pull out the Print drum and remove the master from the drum. 2. Return the Print drum in place. 3. Press the [START] key.
Error Point	Error Conditions
509	The Master loading sensor was OFF when the master was checked at a specified drum angle during the master loading operation.

Error Type	A04 [Master detected on print drum]
LCD Display Description	A04-xxx Master Disposal Error Pull Out Print Drum and Discard Master
To reset display	1. Pull out the Print drum and remove the master from the drum. 2. Return the Print drum in place. 3. Press the [START] key.
Error Point	Error Conditions
303	Check Print Drum - Master disposal error / Master disposal jam.

Error Type	A05 [Master detected in the master disposal area]
LCD Display Description	A05-xxx Master Jammed in Disposal Unit Pull Out Master Disposal Box and Remove Jammed Master
To reset display	Pull out Master disposal box and remove the jammed master, if the error persists, Call Service
Error Point	Error Conditions
304	The Master removal sensor was ON at the completion of the master disposal.
312	The Master removal sensor was ON at the start of the master making.
315	The Master removal sensor was ON after the completion of the recovery movement.

Error Type	A06 [Check paper feed tray]
LCD Display Description	A06-xxx Safety SW on Standard Feed Tray is Activated Reset paper on Standard Feed Tray
To reset display	Check underneath the Standard feed tray (Paper feed tray) and on top of the printing paper for any obstructions. Remove if any exist.
Error Point	Error Conditions
403	Either the Upper or Lower safety switch of the Paper feed tray is OFF. Note: This detection is not made when the machine is in low-power-mode (24V OFF).

J- codes (Paper/ Original errors)

Error Type	J** [Paper/Original jam error]
Description	J** Paper Jam Remove Paper in Indicated Areas and Press [OK] Button
To reset display	Remove jammed paper or original and press Reset key.

When A and B code errors listed bellow occur, they are substituted by J** error codes. The two-digit error-type number which follows after the J is the sum of the Corresponding Values for each of those A-code errors and B-code errors.

Pressing the asterisk key on the operation panel will display the details of the J** errors.

Note: The errors B07, B09, B11 and B17 do not exist on this machine model.

Error Type	Error Description	Bit	Corresponding Value
A10	AF original feed error	0	1
A09	Paper ejection error	1	2
A08	Paper jam on print drum	2	4
A07	Paper feed error	3	8
B07	MTPF: Paper jam error (upper)	6	16
B09	MTPF: Paper jam error (lower)	7	32
B11	MTPF: Tray-1 paper jam error	8	64
B17	MTPF: Tray-2 paper jam error	9	128
B03	Sorter: Jam error	10	256

Example: If A10 and A08 jam errors occur at the same time, the panel message will show error J05.

Jam errors message which comes up after pressing the asterisk key in J** message.

Error Type	A07 [Paper feed error]
LCD Display Description	J** Paper Jam Remove Paper in Indicated Areas and Press [OK] Button Display -No.1 area
To reset display	1. Check the paper feed side and remove the jammed paper. 2. Reload printing paper. 3. Press the <RESET> key if error display does not clear. When using special paper, adjust the Paper Feed Pressure Adjustment Lever according to the paper characteristics.
Error Point	Error Conditions
409	The Paper ejection sensor was OFF when the paper should have arrived, and the Paper sensor was ON when the machine stopped (Paper misfeed).
412	The Paper sensor was OFF three times in succession when a paper misfeed was detected (paper misfeed).
413	The Paper sensor was still ON (detecting paper) when the paper should have went out from the sensor.
418	The Paper sensor was ON at the start of machine operation when the START button was pressed.
429	Paper feed error (recovery error).
432	The Paper sensor was ON when the machine went into paper feed retry movement after a paper misfeed.

Error Type	A08 [Paper jam on print drum]
LCD Display Description	J** Paper Jam Remove Paper in Indicated Areas and Press [OK] Button Display -No.3 area
To reset display	Pull out the Print Drum. Remove the jammed paper. <Do not touch the separation hook or master removal hook when putting your hand into the unit to remove paper. The sharp tips of the hooks can hurt your hand.>
Error Point	Error Conditions
410	The Paper ejection sensor was OFF when paper should have arrived, and the Paper sensor was OFF when the machine stopped (paper jam on the print drum).
430	Paper jam on the Print drum (recovery error).

Error Type	A09 [Paper ejection error]
LCD Display Description	J** Paper Jam Remove Paper in Indicated Areas and Press [OK] Button Display -No.4 area
To reset display	Check for any jammed paper on the paper exit area. When using special paper, adjust the Paper Arranger on the Receiving Tray Paper Guides according to the paper characteristics.
Error Point	Error Conditions
411	The Paper ejection sensor was ON when the paper should have left the Paper ejection sensor.
417	The Paper ejection sensor was ON at the start of machine operation when the START button was pressed.
431	The Paper ejection error (recovery error).

Error Type	A10 [AF original feed error]
LCD Display Description	J** Paper Jam Remove Paper in Indicated Areas and Press [OK] Button Display -No.2 area
To reset display	Pull the AF Original Release Lever (Option) to the right, and remove the original. Raise the Platen Cover, turn the AF Original Release Dial and remove the original.
Error Point	Error Conditions
102	The original is pulled out from the AF unit before the scanning is completed.
103	Original jammed at the AF registration sensor. (The AF registration sensor does not go OFF after the AF read sensor goes ON)
105	Original jammed at AF read sensor. (The AF read sensor does not go OFF after the AF registration sensor goes OFF)
106	Original jammed at AF original ejection sensor. (The AF original ejection sensor does not go OFF after the AF read sensor goes OFF)
107	The Original does not arrive to the AF registration sensor.
108	The Original does not arrive to the AF read sensor.
109	The Original does not arrive to the AF original ejection sensor. (The AF original ejection sensor does not go ON after the AF read sensor goes ON)
169	The AF feed cover is opened due to original jam, while originals are present on the tray.
178	Original not arriving at the Original reverse sensor. <Duplex AF Unit only>
179	Original jammed at the Original reverse sensor. <Duplex AF Unit only>
180	Uneven pitch between the Originals in Original feeding. <Duplex AF Unit only>

Error Type	A16 [Waiting for the master to be removed from the drum]
LCD Display Description	A16-xxx Master Remains on Print Drum Pull Out Print Drum and Remove Master
To reset display	1. Pull out the Print drum and remove the master from the drum. 2. Return the Print drum in place. 3. Press the [START] key.
Error Point	Error Conditions
525	Waiting for the master to be removed from the Print drum.

Error Type	A17 [Cutter error]
LCD Display Description	A17-xxx System Error in Master Making Unit Take Out Master and then Close Master Making Unit Cover
To reset display	Pull out the Master Making Unit and remove master. Closing the Master Making Unit Cover will reset the error. Setup the master again.
Error Point	Error Conditions
209	The Cutter HP switch is OFF when master making starts, when the master material is set in the Master making unit.

Error Type	A34 [Requesting for the master to be reset]
LCD Display Description	A34-xxx Master Not Set in Place Insert Lead Edge of Master into Master Entrance and Close Master Making Unit
To reset display	Pull out the Master Making Unit and reinstall the master. If the leading edge of the master is wrinkled or torn, cut the edge straight and reinstall.
Error Point	Error Conditions
218	Requesting for the master material to be reset into the Master making unit.

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Option errors (B**)

Error Type	B01 [Keycard counter: No card]	
LCD Display Description	B01-xxx Insert Card in Key/Card Counter	
To reset display	Insert card.	
Error Point	Error Conditions	
730	Keycard counter: No card	

Error Type	B02 [Sorter error - Serviceman Call]	
LCD Display Description	B02-xxx Check sorter panel display.	
To reset display	Check the Sorter.	
Error Point	Error Conditions	
702	Serviceman call error command was received from the sorter.	

Error Type	B03 [Sorter error - Jam]	
LCD Display Description	B03-xxx Paper Jam Remove paper in Indicated Areas and Press [OK] Button.	
To reset display	Remove the jammed paper.	
Error Point	Error Conditions	
703	Received paper jam error command was received from the sorter.	

Error Type	B04 [Sorter error - Door open]	
LCD Display Description	B04-xxx Close sorter cover.	
To reset display	Close the Sorter cover.	
Error Point	Error Conditions	
707	Cover open error command was received from the sorter.	

Error Type	B05 [Sorter Error - Other errors]	
LCD Display Description	B05-xxx Check Sorter panel Display	
To reset display	Check the Sorter.	
Error Point	Error Conditions	
709	Other error command was received from the sorter.	

Error Type	B21 [Storage Memory - Unable to Read or Write]
LCD Display Description	B21-xxx !! System Error !! Turn Main Power SW OFF Then ON If Recovery has Failed, Call Service
To reset display	Switch OFF the power and then switch ON the power back.
Error Point	Error Conditions
714	File name error on the Storage Memory.
715	Access error on the Storage Memory.
716	Other error on the Storage Memory.

Error Type	B22 [Job separator: Power off]
LCD Display Description	B22-xxx !! Job Separator is OFF !! Turn On Power Switch of it
To reset display	Press the <RESET> Key and check and switch ON the power of Job Separator.
Error Point	Error Conditions
721	With the [Tape separation] function set ON, no power is supplied to the job separator when start key is pressed.
727	After cluster-A signal turned ON, BUSY-signal stayed [L] more than 7 seconds (power to job separator was turned OFF while the tape is being ejected.

Error Type	B23 [Job separator: No tape]
LCD Display Description	B23-xxx No Paper Tape in Job Separator Replace Tape Roll
To reset display	Press the <RESET> Key and set paper tape in Job Separator.
Error Point	Error Conditions
722	With the [Tape separation] function set ON, no tape detected in the job separator when the start key is pressed.
723	No tape remains in job separator upon completion of the tape-ejection operation.

Error Type	B24 [Job separator: Tape jam]
LCD Display Description	B24-xxx Paper Tape Jam in Job Separator Remove Paper Tape
To reset display	Press the <RESET> Key and remove the jammed tape.
Error Point	Error Conditions
724	Tape jam detected when the start key is pressed with the [Tape separation] function set to ON.
725	The tape-jam detection signal is [H] for more than 1.2 seconds after cluster-A signal turns ON (tape misdeed).
726	Job separator tape-jam detection signal is [L] when the BUSY signal changes from [L] to [H] (or after 7 sec. at [L]) after the cluster-A signal goes ON (tape misfeed).

Error Type	B25 [Sorter - Tray Full Error]
LCD Display Description	B25-xxx Check Sorter Panel Display
To reset display	Remove papers from the Sorter tray.
Error Point	Error Conditions
704	Sorter tray full.

Error Type	B26 [Sorter - Paper Remaining on the Tray]
LCD Display Description	B26-xxx Check Sorter Panel Display
To reset display	Remove paper from the Sorter tray.
Error Point	Error Conditions
705	Paper remaining on the Sorter tray.

Error Type	B27 [Sorter - Stapler Error]
LCD Display Description	B27-xxx Check Sorter Panel Display
To reset display	Check the stapler and correct the stapler problem.
Error Point	Error Conditions
706	Stapler error command is received from the sorter.

Error Type	B28 [Sorter - paper Size Error]	
LCD Display Description	B28-xxx Check Sorter panel Display	
To reset display	Remove paper from the Sorter tray.	
Error Point	Error Conditions	
708	Paper size error command was received from the Sorter.	

Error Type	B29 [USB Memory - Device Error (USB HUB)]	
LCD Display Description	B29-xxx Can not identify (USB hub)	
To reset display	Connect the correct corresponding USB Flash Drive.	
Error Point	Error Conditions	
926	The USB hub connected to this machine.　(HUB type USB Stick is detected - cannot be used.)	

Error Type	B30 [USB Memory - Device Error]	
LCD Display Description	B30-xxx Can not identify	
To reset display	Connect the correct corresponding USB Flash Drive.	
Error Point	Error Conditions	
910	Unrecognized USB device connected to this machine.	

Error Type	B31 [Network cable not connected]	
LCD Display Description	B31-xxx !! No Linked Printer Detected !! Check Cable Connection and Power Supply for Linked Printer	
To reset display	Press the <RESET> Key and connect the network cable.	
Error Point	Error Conditions	
916	Network cable is not connected when the machine is powered ON.	

Error Type	B32 [NIC - Communication error]
LCD Display Description	B32-xxx !! No Linked Printer Detected !! Check Cable Connection and Power Supply for Linked Printer
To reset display	Press the <RESET> Key, and check the network cable and linked printer.
Error Point	Error Conditions
914	MIB (Management Information Base) request error
915	MIB no reply
917	Communication error on the network.
920	Error detected by NET-D Card - NAK (negative acknowledgement was received).

Error Type	B33 [IP address set up error]
LCD Display Description	B33-xxx No IP Address Assigned to This Printer Contact Your Network Administrator
To reset display	Press the <RESET> Key, and enter the IP address..
Error Point	Error Conditions
931	DHCP is ON, but DHCP server is not found.

Error Type	B34 [Linked Printer - No Toner Error]
LCD Display Description	B34-xxx No Toner in Linked Printer
To reset display	Press the <RESET> Key and replace the toner on the linked printer.
Error Point	Error Conditions
919	No toner in the linked printer.

Error Type	B35 [Linked Printer: Call Service Error]
LCD Display Description	B35-xxx Linked Printer in Error
To reset display	Press the <RESET> Key, and correct the error on the linked printer.
Error Point	Error Conditions
970	Error in the linked printer.

Error Type	B38 [USB Memory: Cannot create a folder]	
LCD Display Description	B38-xxx Can not identify	
To reset display	Press the <RESET> Key, and disconnect USB flash drive.	
Error Point	Error Conditions	
911	Fail to create RISO folder	

Error Type	B39 [USB Memory: Cannot read or write]	
LCD Display Description	B39-xxx Can not identify	
To reset display	Press the <RESET> Key, and disconnect USB flash drive.	
Error Point	Error Conditions	
999	Detects device error	

Errors involving consumable (C)**

Error Type	C01 [Replace ink cartridge]
LCD Display Description	C01-xxx No Ink Replace Ink Cartridge
To reset display	Remove the empty ink cartridge and replace with a new one.
Error Point	Error Conditions
512	The Ink sensor did not go ON even when inking was performed for a preset duration.
563	Ink remaining amount is zero from the information on the RF-Tag.
574	Inkless error was detected 5 times consecutively on one same ink cartridge.

Error Type	C02 [Replace master roll]
LCD Display Description	C02-xxx No Master Replace Master Roll
To reset display	Remove the empty master roll and replace with a new one.
Error Point	Error Conditions
200	The master end was detected twice in succession at 10 milliseconds intervals during master transport.
240	Master remaining amount is zero from the RF-Tag information.
253	Master-less error was detected twice consecutively on one same master-roll.

Error Type	C03 [Master disposal box full]	
LCD Display Description	C03-xxx Master Disposal Box is Full Empty Master Disposal Box	
To reset display	Remove the Master disposal box from the machine, throw away the disposed master from the Disposal box and return the Disposal box in the machine after an interval of over 5 seconds.	
Error Point	Error Conditions	
308	Compression detection position was reached before the master-compression-motor encoder-sensor count reached the specified level, after the master compression motor turned ON in the compressing direction.	
311	Master disposal software counter reached to the defined number.	

Error Type	C04 [No paper on the Standard paper Feed Tray]	
LCD Display Description	C04-xxx Add Paper	
To reset display	Add paper on the standard paper feed tray.	
Error Point	Error Conditions	
402	The Paper detection sensor is OFF (not detecting paper).	

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Set check errors (D**)

Error Type	D01 [Print drum not set]
LCD Display Description	D01-xxx Set Print Drum in Place
To reset display	Set the Print drum in the machine.
Error Point	**Error Conditions**
526	The Print drum is not set in the machine (Drum connection signal, the Drum safety switch, and the Print drum lock sensor is OFF).
527	Print drum connection signal is OFF when the Print drum was inserted in the machine.
528	The Drum safety switch is OFF when the Print drum was inserted in the machine.
529	The Print drum lock sensor is OFF when the Print drum was inserted in the machine (time-out: 5 seconds).
530	Print drum connection signal does not go OFF within 5 seconds after the Drum safety switch went OFF when the Print drum was pulled out.

Error Type	D02 [Incorrect print drum]
LCD Display Description	D02-xxx Wrong-Type Print Drum Installed Replace with Correct Type
To reset display	Set correct print drum in the machine.
Error Point	**Error Conditions**
532	Incorrect print drum is used. (Drum code)
580	Incorrect print drum is used. (Drum style)

Error Type	D03 [Ink cartridge not set]
LCD Display Description	D03-xxx Install Ink Cartridge
To reset display	Install the Ink cartridge in the Print drum.
Error Point	**Error Conditions**
533	The Ink bottle set switch is OFF.

Error Type	D04 [Incorrect ink cartridge]	
LCD Display Description	D04-xxx Wrong-type Ink Cartridge Installed or Cannot Read Ink Info Replace Ink Cartridge or Contact dealer/Riso office	
To reset display	Replace with correct ink cartridge.	
Error Point	**Error Conditions**	
534	Incorrect ink cartridge is used.	
560	The Ink RF-Tag is not detected on the Ink bottle.	
561	Ink RF-Tag communication error (communication with the Ink cartridge was interfered by noise).	
562	Wrong ink cartridge information on the Ink RF-Tag.	
564	Detected a mismatch in the Ink RF-Tag.	
575	RF-Tag software error.	

Error Type	D05 [Master not set]
LCD Display Description	D05-xxx Set Master in Place
To reset display	Insert leading edge of the master material into the master entrance and close the master making unit.
Error Point	**Error Conditions**
210	The Master detection sensor is OFF (not detecting master material).

Error Type	D07 [Master disposal box not set]
LCD Display Description	D07-xxx Set Master Disposal Box in Place
To reset display	Set the Master disposal box in the machine. (Both the Master disposal safety switch & Master disposal set sensor must become ON.)
Error Point	**Error Conditions**
310	The Master disposal box safety switch is OFF.
313	The Master disposal box set sensor is OFF

Error Type	D08 [Master making unit not set]	
LCD Display Description	D08-xxx Set Master Making Unit in Place	
To reset display	Insert the Master making unit in the machine.	
Error Point	Error Conditions	
224	The Master making unit is not set (both the Master making unit safety switch and Master unit lock sensor are OFF).	
226	The Master making unit safety switch is still OFF when the Master making unit is set in position.	
227	The Master making unit lock sensor is still OFF when the Master making unit is set in position (timeout: 5 seconds).	
228	The Master making unit lock sensor is still ON even after the Master making unit safety switch went OFF, when the Master making unit was pulled out of the machine.	

Error Type	D09 [Master making unit cover is not closed]	
LCD Display Description	D09-xxx Close Master Making Unit Cover	
To reset display	Close the Master making unit cover.	
Error Point	Error Conditions	
212	The Master making unit upper cover set switch is OFF.	

Error Type	D11 [Front cover not closed]	
LCD Display Description	D11-xxx Close Front Cover	
To reset display	Close the Front cover of the machine.	
Error Point	Error Conditions	
535	The Front cover set sensor is OFF.	

Error Type	D13 [Rear cover not closed]
LCD Display Description	D13-xxx Rear Cover of Main Body is Off Call Service
To reset display	Close the Rear cover of the machine to activate the Rear cover safety switch. [Field serviceman has to close and screw on the Rear cover]
Error Point	Error Conditions
009	The Rear cover is opened (The Rear cover safety switch is OFF).

Error Type	D17 [Incorrect master roll]
LCD Display Description	D17-xxx Wrong-type Master Installed or Cannot Read Master Info Replace Master Roll or Contact dealer/Riso office
To reset display	Set a correct master roll in the machine.
Error Point	Error Conditions
236	Incorrect master roll.
237	Master roll RF-Tag not detected.
238	Master roll RF-Tag communication error. (Communication interrupted by noise)
239	Incorrect information on the Master roll RF-Tag.
241	Mismatch in the Master roll RF-Tag information.
256	Master roll RF-Tag software error. Antenna channel selection error. Tried to write data in the protected area in the RF-Tag.

Error Type	D18 [Print drum is ready for removal]
LCD Display Description	D18-xxx Print Drum has been Unlocked
To reset display	Pull out the Print drum.
Error Point	Error Conditions
522	The Print drum is unlocked for its removal. (Drum lock Solenoid is ON).

Error Type	D19 [Master making unit is ready for removal]
LCD Display Description	D19-xxx Master Making Unit has been Unlocked
To reset display	Pull out the Master making unit.
Error Point	Error Conditions
223	The Master making unit is unlocked for its pull-out. (Lock Solenoid is ON).

Error Type	D22 [Print drum removal command]
LCD Display Description	D22-xxx Print Drum Not Set in Place. Press Print Drum Release Button and Pull Out Print Drum after the Button Lights
To reset display	Pull out Print drum from the machine.
Error Point	Error Conditions
540	Cannot access to the EEPROM on the Drum PCB.
542	Drum PCB EEPROM data error.

Error Type	D23 [AF Cover not closed] <Duplex AF only>
LCD Display Description	D23-xxx Close the AF Cover
To reset display	Close the AF Cover
Error Point	Error Conditions
223	The AF Cover is opened. <Duplex AF only>

Warnings requiring service calls (E**)

Error Type	E01 [Replace battery]
LCD Display Description	E01-xxx !!Battery Replacement!! Call Service
To reset display	Touch [Close], or press the <STOP> key or the <RESET> Key.
Error Point	**Error Conditions**
010	Battery voltage was less than 2.1 V when the power was switched ON (weak battery: time to replace battery). *Make sure to replace the battery while the machine power is ON, or the built-in timer of the machine needs to be re-set.

Error Type	E02 [Maintenance call]
LCD Display Description	E02-xxx !!Maintenance!! Call Service
To reset display	Touch [Close], or press the <STOP> key or the <RESET> Key.
Error Point	**Error Conditions**
011	Master counter reached the value set for the maintenance call (value set by test mode). [The message appears when either the power is turned ON, the unit is reset, or when the machine operation ended.]
012	Copy counter reached the value set for the maintenance call (value by set test mode). [The message appears when either the power is turned ON, the unit is reset, or when the machine operation ended.]
022	Maintenance counter inside the Print drum reached the value set for the maintenance call (value set by test mode). [The message appears when either the power is turned ON, the unit is reset, or when the machine operation ended.]

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Warnings [Miscellaneous] (F**)

Error Type	F01 [No master on print drum]
LCD Display Description	F01-xxx No Master on Print Drum Make a New Master
To reset display	Touch [Close].
Error Point	Error Conditions
015	There is no master on the Print drum at the start of printing.

Error Type	F02 [Master image larger than paper size (1)]
LCD Display Description	F02-xxx Page Format is Larger than Paper Size !! Possible Ink Smudges on Prints !!
To reset display	When printing from the machine; Touch [Continue], or press the <START> key. When stopping the print job; Touch [Cancel], or press the <STOP> key or the <RESET> key.
Error Point	Error Conditions
018	Paper size does not match with the image size on the Print drum at the start of printing. The paper size is smaller than the image size on the master.

Error Type	F03 [Multi-up printing - Incorrect paper size]
LCD Display Description	F03-xxx !! Multi-Up is Not Available with This Paper Size !! Replace with Proper Paper of Standard Size
To reset display	Touch [Close], or press the <STOP> key or the <RESET> key. Place correct size paper on the paper feed tray.
Error Point	Error Conditions
016	Tried to make multi-up printing with incorrect paper size.

Error Type	F04 [User Control: Limit count]	
LCD Display Description	F04-xxx Reached to the limit count Contact the administrator	
To reset display	Touch [Close], or press the <STOP> key or the <RESET> key.	
Error Point	Error Conditions	
905	Master count reached to limit count.	
906	Paper count reached to limit count.	

Error Type	F05 [Print quantity under Minimum Print Quantity]	
LCD Display Description	F05-xxx Enter Print Quantity Over [N], Programmed Minimum Value	
To reset display	Enter print quantity value over the programmed minimum value the press the <START> key.	
Error Point	Error Conditions	
019	In master making or printing, the print quantity selected is less than the minimum print quantity.	

Error Type	F08 [Auto Tray - Paper Size and Original Size does not Match]	
LCD Display Description	F08 !! No Auto Reproduction with This Original and Printing Paper !! Select Size Manually	
To reset display	When changing the "size" setting; Touch [Size Setting]. When stopping the print job; Touch [Cancel], or press the <STOP> key or the <RESET> key.	
Error Point	Error Conditions	
017	When the Auto-Tray is selected, the original size (scanning ratio) and the printing paper set on the tray (s) did not match.	

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Error Type	F10 [Master image larger than paper size (2)]
LCD Display Description	F10-xxx Page Format is Larger than Paper Size !! Possible Ink Smudges on Prints !! (Continue->PROOF Key)
To reset display	To continue the printing, press the <PROOF> key. To stopping the print job, touch [Cancel], or press the <STOP> or the <RESET> key. Or set paper on the paper feed tray, which is larger in size than the printing image.
Error Point	Error Conditions
021	Paper size does not match with the size of image on the print drum when Proof Print is activated.

Error Type	F12 [Auto-Tray: Irregular Size Original]
LCD Display Description	F12-xxx Auto Paper Size Selection is Not Available for Irregular-Size Original Select Format Size to Store and then Restart
To reset display	To specify the format for saving; Touch [Saving Format]. To cancel scanning; Touch [Cancel], or press the <STOP> key or the <RESET> key.
Error Point	Error Conditions
024	Irregular size original was used when Auto-Tray was selected.

Error Type	F15 [Paper size does not match with the paper on the paper receiving tray]
LCD Display Description	F15-xxx Receiving Tray Paper Guides Cannot Move Remove Paper from Receiving Tray
To reset display	Touch [Cancel].
Error Point	Error Conditions
042	With the auto-control-paper-receiving-tray connected, the paper already on the Receiving tray is larger than the printing paper.

Error Type	F17 [Print drum size does not match]
LCD Display Description	F17-xxx [The message to appear when print drum is inserted.] 　　!!The Print Drum Type has been Changed!! 　　Select the Current Print Drum Type [The message to appear when print drum type is selected.] 　　　Invalid Print Drum has been Selected 　　　Change Drum, or Re-select Drum Size
To reset display	[The message to appear when print drum is inserted.] When changing a settings; In the Confirm Drum Type screen, select the type of Print Drum currently installed and touch [OK]. When installing a different Print Drum; Pull out the Print Drum and replace with the same one as before. [The message to appear when print drum type is selected.] When changing a settings; In the Confirm Drum Type screen, select the type of Print Drum currently installed and touch [OK]. When installing a different Print Drum; Pull out the Print Drum and replace with the correct one.
Error Point	Error Conditions
027	Different size print drum from the one previous is set.

Error Type	F18 [Original size & Paper size do not match]
LED Display Error position	Check the Settings The Selected Reproduction Ratio will not fit the Max. Printing Area.
To reset display	Press the <Continue> button or <START> key to Continue the scanning job. 　Or Press the <Cancel> button or <STOP> key to Cancel the scanning job.
Error Point	Error Conditions
875	At the start of a scanning job, the (paper size) and (original size x Reproduction ratio). Note: This message displays only on the machines with the Front feeding trays, and when the paper feed tray is selected manually.

Error Type	F24 [Auto Reproduction Size Selection Not Possible]
LCD Display Description	F24-xxx !! No Auto Reproduction Size Selection with This Combination of Original and Printing Paper !! Select Size manually
To reset display	When changing the [Size] setting; Touch [Size Setting]. When stopping the print job; Touch [Cancel], or press the <STOP> key or the <RESET> key.
Error Point	Error Conditions
037	The reproduction ratio does not match when the job starts under Auto Reproduction Size selection.

Error Type	F30 [Possible Multiple Paper Feed]
LCD Display Description	F30-xxx !! Possible Multiple Paper Feed !! Check Printed Copies
To reset display	Touch [Cancel] button, Press [STOP] or [RESET} key. or disable the Multiple paper feed detection.
Error Point	Error Conditions
425	Multiple paper feed is detected on the first paper fed through.
426	Multiple paper feed is detected on the paper just fed through. (Other than the 1st paper.)

Error Type	F31 [Auto Control Paper Receiving Tray - Paper Guide Fence Error]
Description	F31-xxx Check Paper Receiving Tray
To reset display	Press the <START> key or the <STOP> key.
Error Point	Error Conditions
836	HP sensor did not go ON when the side fences made initial home position movement.
837	HP sensor did not go OFF when the side fences should have left home position.
838	HP sensor did not go ON when the end fence made initial home position movement.
839	HP sensor did not go OFF when the end fence should have left home position.
868	Even though the End fence pulse motor ended its movement by the sensor detection, the sensor status does not match with the programmed status.
869	Even though the Side fence pulse motor ended its movement by the sensor detection, the sensor status does not match with the programmed status.
870	The End fence pulse motor does not stop either by its pulse count stop nor by sensor detected stop.
871	The Side fence pulse motor does not stop either by its pulse count stop nor by sensor detected stop.

Error Type	F32 [Storage Data - Storage Area Full]	
LCD Display Description	F32-xxx !! The Data Storage Area has Become Full !! Clear Old Storage Data	
To reset display	Touch [Close], or press the <STOP> key or the <RESET> key.	
Error Point	Error Conditions	
713	The Storage memory card became full while saving data.	

Error Type	F33 [USB Memory - Memory Area Full]	
LCD Display Description	F33-xxx The file size is too large to store on USB Flash Drive Change the USB Flash Drive or delete some files to make spaces	
To reset display	Touch [Close], or press the <STOP> key or the <RESET> key.	
Error Point	Error Conditions	
913	The USB memory became full while saving data.	

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Error Type	F37 [Book mode: AF cannot be used]
LCD Display Description	F37-xxx !! Book Shadow Editor is Not Available with AF !! Place Original on Glass Platen
To reset display	Touch [Close], or press the <STOP> key or the <RESET> key.
Error Point	Error Conditions
050	Original was set on the AF with book mode selected in master making.

Error Type	F43 [Data printing / Paper size mismatch]
LCD Display Description	F43-xxx !! Unmatched Size -- Current Page and Printing Paper !! Check Paper Size
To reset display	When resuming the print job; Touch [Continue], or press the <START> key. When stopping the print job; Touch [Cancel], or press the <STOP> key or the <RESET> key.
Error Point	Error Conditions
902	Original size is larger than the paper size when the print data received from the PC.

Error Type	F44 [Auto Reproduction Size - Error in the Original Size]
LCD Display Description	F44-xxx !! No Auto Reproduction with This Original Size !!
To reset display	When changing the "Size" setting; Touch [Size Setting]. When stopping the print job; Touch [Cancel], or press the <STOP> key or the <RESET> key.
Error Point	Error Conditions
901	Original size could not be detected (original size out of the size detection specification).

Error Type	F45 [Original Undetected]
LCD Display Description	F45-xxx Original Undetected Reset Original
To reset display	Re-position the original to clear the Pop-Up message. When resuming the print job; Touch [Continue], or press the <START> key. When stopping the print job; Touch [Cancel], or press the <STOP> key or the <RESET> key.
Error Point	Error Conditions
954	Auto-tray or Auto-reproduction size is selected, and master making or print to linked printer is started with original undetected
959	Master making or print to a linked printer is started with original undetected.
981	The original not detected when [NEXT] button was pressed in Multi-Up Wizard display.

Error Type	F47 [AF - card size reproduction not available]
LCD Display Description	F47-xxx [A4->Card] Reproduction is Not Available in combination with AF Place Original on Stage Glass
To reset display	Remove original from AF and set it on the stage glass.
Error Point	Error Conditions
904	Reproduction size from A4 size reduced to card size is selected and the original is placed on the AF unit.

Error Type	F48 [Multi-Up - Wrong Original Size]
LCD Display Description	F48-xxx Original Size Exceeds Limitation of Multi-Up Specify Original Size
To reset display	When changing the "Original Size" setting; Touch [Original Size]. When resuming the print job; Touch [Continue], or press the <START> key. When stopping the print job; Touch [Cancel], or press the <STOP> key or the <RESET> key.
Error Point	Error Conditions
955	During the multi-up operation, the original size was detected as customs size or out of specification.

Error Type	F49 [Multi-Up - No Original]
LCD Display Description	F49-xxx Original Undetected Reset Original
To reset display	Re-position the original to clear the Pop-Up message. When resuming the print job; Touch [Continue], or press the <START> key. When stopping the print job; Touch [Cancel], or press the <STOP> key or the <RESET> key.
Error Point	Error Conditions
989	The original was undetected when Multi-Up operation was selected for either one original or multi-original.

Error Type	F52 [Printing from Linked Printer disabled - Printer data not received]
LCD Display Description	F52-xxx Acquiring Linked Printer Configuration Data Please Wait a Moment
To reset display	Touch [Close].
Error Point	Error Conditions
912	Printing from linked printer disabled (Linked printer data not received).

Error Type	F58 [Printing from Linked Printer Disabled - Initializing NET-D]
LCD Display Description	F58-xxx Starting Up RISORINC-NET Please Wait a Moment
To reset display	Touch [Close].
Error Point	Error Conditions
927	Printing from Linked Printer disabled (NET-D being initialized).

Error Type	F60 [Printer-Auto-Selection disabled: Print quantity selected is 0]
LCD Display Description	F60-xxx !! Number of Copies is set to [0] !! Printing Operation will Start on this Printer
To reset display	Touch [Cancel], or press the <STOP> key or the <RESET> key.
Error Point	Error Conditions
929	Auto-printer-selection is disabled with print quantity selected as Zero.

Error Type	F61 [Linked Printer - Wrong Paper Size]
LCD Display Description	F61-xxx Proper Size Paper is Not Set on Linked Printer Set Proper Paper
To reset display	Touch [Cancel], or press the <STOP> key or the <RESET> key.
Error Point	Error Conditions
930	Original size does not match with the paper size set on the linked printer.

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Error Type	F62 [Printer-Auto-Selection disabled - Linked printer error]
LCD Display Description	F62-xxx !! Auto-Link Operation is Not Available !! Specified Linked Printer may be in Error or Turned OFF
To reset display	Touch [Cancel], or press the <STOP> key or the <RESET> key.
Error Point	Error Conditions
956	Auto-printer-selection is disabled due to linked printer error.

Error Type	F63 [Linked Printer - Auto Tray Selection not available for Irregular Size Original]
LCD Display Description	F63-xxx !! No Auto Paper Size Selection with Irregular Size Original !! Select Paper Size and then Restart
To reset display	Touch [Cancel], or press the <STOP> key or the <RESET> key.
Error Point	Error Conditions
971	Auto-Tray-Selection was used in printing from the linked printer using irregular sized original.

Error Type	F64 [Selected Function Not Available While Processing Print Data from PC]
LCD Display Description	F64-xxx Processing Print Data from PC This Function is Not Available while Processing Current Data
To reset display	Touch [Close].
Error Point	Error Conditions
964	Scanning, Overlay, Digitizer or Hold function was selected while the printer is receiving data from PC.

Error Type	F65 [Scan Mode - Auto Page Size Selection Not Available for Irregular Size Original]	
LCD Display Description	F65-xxx Auto Page Size Selection is Not Available for Irregular-Size Original Select Format Size to Store and then Restart	
To reset display	Touch [Cancel], or press the <STOP> key or the <RESET> key.	
Error Point	Error Conditions	
965	The auto-size (save data) selection at start of scanning is detected as original irregular in size.	

Error Type	F66 [Linked printer saddle stitching is disabled]	
LCD Display Description	F66-xxx Saddle Stitching is Not Available with This Paper Size	
To reset display	Touch [Cancel], or press the <STOP> key or the <RESET> key.	
Error Point	Error Conditions	
962	Specified tray does not have any A3 (Ledger), B4 (Legal), A4 (Letter) or A4L (Letter-L) when printing from linked printer with saddle stitching selected.	

Error Type	F67 [Linked printer saddle stitching is disabled]	
LCD Display Description	F67-xxx !! Improper Paper for Rotation Sorting !! Set Same Sized Paper in 2 Trays, One in Horizontal and Other in Vertical Direction	
To reset display	Touch [Cancel], or press the <STOP> key or the <RESET> key.	
Error Point	Error Conditions	
963	Specified size papers are not set in horizontal and vertical directions in the linked printer tray, when printing from linked printer with rotation sorting selected.	

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Error Type	F73 [Linked Printer - Auto Tray Selection Not Available with Selected Reproduction Ratio]
LCD Display Description	F73-xxx Paper Size cannot be Defined by Specified Reproduction Size Select Paper Tray and Press Start Key
To reset display	Touch [Cancel], or press the <STOP> key or the <RESET> key.
Error Point	Error Conditions
975	In Linked Printer printing, the detected original size does not match with the selected reproduction size.

Error Type	F74 [High Speed Printing - Printer Temperature is Too Low for 180 ppm High Speed Printing]
LCD Display Description	F74-xxx Printer Temperature is Low 180 ppm is Not Available
To reset display	To stop printing, press [STOP] or [START] key To continue printing, press [START] key or touch [CONTINUE] button and print at Speed No.5
Error Point	Error Conditions
980	High speed printing was selected with the machine temperature below 15 degrees Celcius.

Error Type	F78 [Editor - Stage Cover is Opened]
LCD Display Description	F78-xxx Close Stage Cover If original moves you may not get desired result
To reset display	Close the Stage cover and touch [Close].
Error Point	Error Conditions
731	The stage cover is opened during the digitizer operation.

Error Type	F79 [Editor - No Original During Re-Scanning]	
LCD Display Description	F79-xxx Set Original and Press Start key Re-scanning will be Started to Add Image Processing	
To reset display	Touch [Cancel].	
Error Point	Error Conditions	
732	The original was not detected during re-scanning.	

Error Type	F85 [External CI - Scanning Not Possible with External CI not Connected]	
LCD Display Description	F85-xxx !! Scanning is Not Possible !! External CI is not Connected or Processing Connection Check Cable Connection	
To reset display	When resuming the scanning; Press the <START> key. When stopping the scanning; Touch [Close].	
Error Point	Error Conditions	
995	Either the External Controller is not connected or improperly connect.	
997	Failed to delete the job on the External Controller.	
998	Receiving the scanning data by the External Controller.	

Error Type	F86 [Auto Tray Selection - Tray Cannot Be Selected with Selected Reproduction Ratio]	
LCD Display Description	F86-xxx Paper Size cannot be Defined by Specified Reproduction Size Select Paper Tray and Press Start Key	
To reset display	Touch [Cancel], or press the <STOP> key or the <RESET> key.	
Error Point	Error Conditions	
864	With the Auto Tray selected, the master-making was activated with original size which does not match with the reproduction ratio against the printing paper.	

Error Type	F87 [Auto Tray Selection - Multi-Up Not Possible]
LCD Display Description	F87-xxx Select Paper Tray
To reset display	Touch [Cancel].
Error Point	Error Conditions
865	Multi-Up was chosen with Auto Tray selected.

Error Type	F88 [Auto Tray Selection - 2 UP Selection Error]
LCD Display Description	F88-xxx Select Paper Tray and Press Start Key
To reset display	Touch [Cancel], or press the <STOP> key or the <RESET> key.
Error Point	Error Conditions
866	With Auto Tray selected, the 2-UP was selected with original sizes other A4R or B5R or Letter-R.

Error Type	F89 [Interposer Mode - Wrong Paper Size]
LCD Display Description	F89-xxx !! Unmatched Paper Size !! Interposal Paper is Smaller than Printing Paper Check Interposal Paper Size
To reset display	Touch [Close], or press the <STOP> key or the <RESET> key.
Error Point	Error Conditions
867	Interposer mode was selected with interposal paper smaller than the printing paper.

Error Type	F90 [Ink Supply Stock Inventory]
LCD Display Description	F90-xxx Check Stock of Required Ink and Please Order If Needed
To reset display	Touch [Close], or press the <STOP> key or the <RESET> key.
Error Point	Error Conditions
957	Set quantity of the specified color ink stock quantity is equal to or less than the calculated stock quantity.

Error Type	F91 [Master Roll Supply Stock Inventory]
LCD Display Description	F91-xxx Check Stock of Required Master and Please Order If Needed
To reset display	Touch [Close], or press the <STOP> key or the <RESET> key.
Error Point	Error Conditions
958	Set quantity of the specified master roll stock quantity is equal to or less than the calculated stock quantity.

Error Type	F92 [Original Size is Larger than the Master Making Size]
LCD Display Description	F92-xxx Check the Original Size. The Original Size is Larger than the Max. Printing Area
To reset display	Select correct reproduction ratio. Press the <Continue> button or <START> key to continue. Press the <Cancel> button or <STOP> button to discontinue.
Error Point	Error Conditions
874	Master-making was selected with an Original larger than the master-making area with the reproduction ratio selected to 100%. NOTE: The error is displayed on the machines with the Front feeder trays and when Auto-tray selection is selected.

Error Type	F93 [Reproduction Size - Larger than the Master Making Size]
LCD Display Description	F93-xxx Check the Settings The Selected Reproduction Ratio will not fit the Max. Printing Area
To reset display	When resuming the print job; Touch [Continue], or press the <START> key. When stopping the print job; Touch [Cancel], or press the <STOP> key.
Error Point	Error Conditions
936	Either of the following two causes the reproduction ratio to exceed the printing area. 1) Auto Tray is selected with reproduction ratio neither at 100% nor at AUTO. 2) Paper tray is manually selected and the reproduction ratio is at AUTO.

CHAPTER 16: PANEL MESSAGE

Error Type	F94 [Protect Mode - Discard Current Master]	
LCD Display Description	F94-xxx PROTECT Discard Current Master	
To reset display	Press the <START> key.	
Error Point	Error Conditions	
007	The protect function is active when machine power is turn ON, machine woke up from sleep, or print drum is inserted into the machine.	

Error Type	F95 [Protect Mode - Confirmation]	
LCD Display Description	F95-xxx PROTECT Discard Current Master	
To reset display	Press the <START> key or press the <STOP> key.	
Error Point	Error Conditions	
008	The job completes when the protect mode is selected active by the Admin. display.	

Error Type	F96 [Total Count Volume]	
LCD Display Description	F96-xxx Day to Count the Total Used Volume Contact the Administrator	
To reset display	Press <CLOSE> button, <STOP> key or <RESET> key.	
Error Point	Error Conditions	
918	The set date to count the used volume has come.	

Error Type	F97 [Count Charge]	
LCD Display Description	F97-xxx Day to Calculate the Count Charge Contact the Administrator	
To reset display	Press <CLOSE> button, <STOP> key or <RESET> key.	
Error Point	Error Conditions	
928	The set date to add the count charge has come.	

Parameter Value input (H**)

Error Type	H01 [Ink color setting] Consumable Information Input Wizard. Ink Information Input
LCD Display Description	INK / Cannot Get Consumable Info. Input Values Required.
To reset display	Press OK button and then enter the required parameter value. (1: Black 2: Color) **H1.......Ink color setting** (1: light - 5: Dark) **H2.......Print density fine adjustment** (1: light - 5: Dark) **H3.......First print density adjustment**
Error Point	Error Conditions
566	Ink color and viscosity information are missing. Manual parameter input is necessary.

Error Type	H04 [Master Density] Consumable Information Input Wizard. Master Information Input
LCD Display Description	MASTER / Cannot Get Consumable Info. Input Values Required
To reset display	Press OK button and then enter the required parameter value. (1: light - 10: Dark) **H4.......Master Density** (1: light - 5: Dark) **H5.......Print density fine adjustment** (1: light - 5: Dark) **H6.......First print density adjustment**
Error Point	Error Conditions
242	Master material sensitivity information are missing. Manual parameter input is necessary.

Errors Requiring Special Attention

The errors listed below are not cleared even when the machine power is switched OFF and ON. The problem must be corrected in order to clear the error message.

Error Type	Error Description
C01	Replace ink cartridge
C02	Replace master roll
C03	Master disposal box full

The errors listed below activates RECOVERY action on the machine the next time the machine power is turned ON if the machine was previously turned OFF with the given error message.
The machine may indicate a different but a related error message when the machine power is turned ON.

Error Type	Error Description
T13	Cutter motor lock
A02	Master loading error
A04	Master removal error
A08	Paper jam on print drum
A16	Waiting for the master to be removed from the drum
A17	Cutter error

CHAPTER 17: TEST MODE

Contents

RISO Inc. Technical Operations

1. Test Mode Procedures

1) Starting up the Normal Area Test Mode

Start-up Procedure

Switch ON the machine power while simultaneously pressing the two print position keys <the vertical UP and DOWN keys> on the operation panel.   This initiates the test mode in standby mode.
The <MASTER-MAKING> progress LED illuminates to indicate that you are in the Normal Area Test Mode.

Power Switch

+ **=** Normal Area Test Mode

<MASTER-MAKING> progress LED illuminates.

2) Starting up the Protected Area Test Mode

Start-up Procedure

After getting into the Normal Area Test Mode by the above procedure, enter 4-digit password key 9874 and press the Start Key.
Both the <MASTER-MAKING> and <PRINT> progress LED> illuminates to indicate that you are in the Protected Area Test Mode.

Both the <MASTER-MAKING> and <PRINT> progress LED illuminates.

Protected Area Test Mode

3) Entering the Test Mode Number

Entering the Test Mode Number can be done in two ways.

The one way, if you know the specific test mode number, is by directly typing in the Test Mode Number using the numeric keys.

Another way, is by selecting the Test Mode from the test mode menu list on the LCD touch panel.

Press the <START> key to execute the selected test mode.

There are test modes which ends automatically and there are test modes in which you need to press either the <STOP> or <START> key to end the test mode.

The <STOP> key escapes out from the test mode and goes into test mode standby mode.

The <START> key keeps the machine in the selected test mode standby mode.

4) Exiting out from the Test Mode

To exit the Test Mode, press the <RESET> key for at lease 1 second during the test mode standby mode or test mode operation standby mode.

2. Individual Test Procedures

1) Checking sensors and switches

Indicates the sensor and switch status with audible beeps.

Detected: Buzzer sounds at 0.1 second intervals (short beeps).

Not detected: Buzzer sounds at 0.5 second intervals (long beeps).

2) Checking motors and solenoids

Switch on by pressing the [Start] key, then press the [START] or [STOP] key to switch off.

* Error checking is not performed during the operation. Note that moving parts may lock if at their limit positions.

3) Checking unit operations

(1) Switch on by pressing the [Start] key, then initiate unit operation. Error checking is performed in basically the same way as for normal operation. Some operations will halt when the sequence is complete, while other operations will continue until you press a key ([STOP] or [START]).

(2) A continuous audible tone is emitted to indicate an error. To cancel errors, press the [RESET] key.

4) Data clear

Press the [Start] key to clear the data. [In Action] message appears while clearing the data. The activating ends automatically and [End] message appears when completed.

5) Data check

Press the [Start] key to display data.

* Data check only displays the various settings. These settings cannot be changed here.

6) Data setting

(1) Press the [Start] key to display and change the data currently set.

(2) Change data using the numeric keys. Use the [*] key to change the display.

(3) Once settings have been changed, press the [START] key to confirm the data and return to standby mode. Press the [STOP] key to cancel the settings and return to standby mode.

* The settings will be set to their default values if values beyond the specified setting ranges are entered. The settings are also set to their default values if values are entered in units other than the units specified.

3. System & Control Panel Test Mode

No	Sensor & Switch Check
0001	Wake-up Key
	ON: Key pressed
0002	Solenoid counter connection signal
	ON: Solenoid counter connected
0003	24V A output signal
	ON: 24V-A (24 volts) is output
0004	24V B output signal
	ON: 24V-B (24 volts) is output
0005	Rear cover safety switch
	ON: Rear cover is attached
No.	**Motor & Solenoid**
0062	Wake-up LED
	LED Illuminates
No.	**Unit Check**
0080	Test Print A (checkered)
	Creates Test pattern 1 (Checker Flag)
0081	Test Print B (cross stripes)
	Creates Test pattern 2 (Cross Lines)
0082	Test Print C (Dot1)
	Creates Test pattern 4 (Dot 1)
0083	Test Print D (Dot2)
	Creates Test pattern 5 (Dot 2)
0084	Test Print E (Dot1 + Cross Lines)
	Creates Test pattern 6 (Dot 1 + Cross Lines)
0085	Test Print F (Dot2 + cross stripes)
	Creates Test pattern 7 (Dot 2 + Cross Lines)
0086	Test Print G (Dot3)
	Creates Test pattern 8 (Dot 3)
0087	Paper-Feed Test (continuous feeding)
	Speed 1 = 60 rpm Speed 2 = 80 rpm Speed 3 = 100 rpm Speed 4 = 120 rpm Speed 5 = 130 rpm High-Speed = 180 rpm
0088	Low-Speed Printing Operation
	Prints continuously at 15 rpm.
0090	Firmware download
	Firmware is downloaded when START key is pressed.
0094	Unit Initialization
	Mechanical initialization is made. (Scanner, TPH, Compression plate,Clamp unit, Vertical print position, Printing pressure)
0095	System Configuration Data Output
	Creates a master for the CI system data.
0097	Data-Setting & Error-History Output
	Creates a master for the list of data-setting changes and the error history.
0101	Machine Clock Activation
	Activates time set by Test Modes from No.0171 through 0173. The new clock time set by test mode No. 0171 through No.0173 will not be applied unless this test mode No. 0101 is activated.

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0103	Machine Test Mode Data Recording
	Stores the machine Test Mode settings into CF card.
0104	Print drum Test Mode Data Recording
	Stores the Print drum Test Mode settings in the EEPROM of the Print Drum PCB into CF card.
0105	Machine Test Mode Data Re-store
	Writes the test mode settings retrieved in CF card by test mode No.0103 into the NeoROSA PCB.
0106	Print Drum Test-Mode Data Re-store
	Writes the test mode settings retrieved in CF card by test mode No.0104 into the Print Drum PCB EEPROM.
0107	Test Mode Data Back-up
	Stores all the test mode numbers and settings, which are changed from the program default, are stored in CF card for record keeping purpose.
No.	**Data Clear**
0110	Clearing Jam Status Data
	This test mode can also be used to clear error data for items for which jam can otherwise be cleared only by the jam release procedure. Consumable errors cannot be cleared.
0111	Clearing User Memory
	Initializes data in user area memory to the programming defaults.
0112	Clearing Normal Area Test-Mode Data Memory [MACHINE]
	Initializes all normal area test mode settings on the machine to their programming default values. The protected area test modes stay unchanged.
0113	Maintenance Count Clear (master making)
	Clears the master making maintenance call message by resetting the count to zero.
0114	Maintenance Count Clear (printing)
	Clears the printing maintenance call message by resetting the count to zero.
0115	Maintenance Count Clear (print drum)
	Clears the print drum maintenance call message by resetting the count to zero.
0116	Set-up Wizard Initialize
	Initializes the set-up wizard to the out-of-the-factory condition.
0117	Clearing Normal Area Test-Mode Data Memory [PRINT DRUM]
	Initializes all normal area test mode settings within the EEPROM of the print drum to their programming default values. The protected area test modes stay unchanged.

No.	Data Check
0120	**System Parameter Adjustment Record** Displays the test mode numbers and settings for all the test modes changed from the program default settings. (Does not list those in the protected test mode.)
0121	**Switch Action Record** Displays error codes for set-switch errors which caused the machine to stop. (Most recent 64 items)
0122	**Error Record** Lists error code history of the error types T, A and B which occurred on the machine. (Most recent 64 items)
0123	**Maintenance Count** Displays all the maintenance counter values (master making, printing, and print-drum).
0126	**Optional Configuration Check** Displays optional peripherals/devices currently connected.
0132	**Download File Information** Displays the following: File name, Firmware type (MECHA, ROSA, DSP), Machine type, Firmware version number, File date, Media type (U=USB, C=CF card)

0135	**Paper Size ID display**
	
	Displays paper ID decided according to paper size VR and paper size detection sensor.
	<Which ID to display depends on the machine model>
	00 No paper
	01 A3
	02 B4
	03 A4
	04 A4 landscape (long edge feed)
	05 B5
	06 B5 landscape (long edge feed)
	07 A5
	08 A5 landscape (long edge feed)
	09 B6
	10 B6 landscape (long edge feed)
	11 Post card
	12 Post card landscape (long edge feed)
	13 Ledger
	14 Legal
	15 Letter
	16 Letter landscape (long edge feed)
	17 Statement
	18 Statement landscape (long edge feed)
	19 Foolscap
	30 Chinese Paper No. K16
	31 Chinese Paper No. K16 landscape (long edge feed)
	32 Chinese Paper No. K8
	50 Paper size undefined 1
	    (paper size detection sensor : ON)
	51 Paper size undefined 2
	    (paper size detection sensor : OFF)

No.	Data Setting
0141	Counter Display Control
	Selection to display or not to display the Counter
	Setting: 0 : Not displayed 1 : Displayed <default>
0142	Test Mode Display Language Selection
	Display language selection.
	Setting: 0 : Normal 1 : Japanese 2 : English 3 : Chinese
0143	Maintenance: Master Count Entry
	Sets the number of master making at which the maintenance-call message is displayed.
	Range : 0 to 999,900 master making Unit : 1 = 100 master making Default : 0 : No maintenance call display
0144	Maintenance: Copy Count Entry
	Sets the number of prints at which the maintenance-call message is displayed.
	Range : 0 to 9,999,000 printing Unit : 1 = 1000 printing Default : 0 : No display maintenance call display
0145	Maintenance: Drum Meter Entry
	Sets the number of print-drum prints at which the maintenance-call message is displayed (for each print drum).
	Range : 0 to 9,999,000 printing Unit : 1 = 1000 printing Default : 0 : No display maintenance call display
0146	Scanning Priority in Master Making
	To prevent machine movement vibration from affecting the scanning quality, the master removal and master making action is made after the scanning, if selected to ON.
	Setting: 0 : OFF <default> 1 : ON
0149	Authentication Enable/Disable Selection

	Selects whether to enable or disable the authentication function.
	  * This test mode is not displayed on the Operation Panel.
	  * The setting goes back to the <default> after the machine power is turned OFF.

	Setting: 0 : Disabled 1 : Enabled <default>
0150	Print Quantity Display Recovery
	Selection of print quantity display after print job is finished. Displays either [0] or [previous print quantity].
	Setting: 0 : Returns back to 0 quantity <default> 1 : Displays previous print quantity

0151	Print Speed After Short Interval	
	Gradual print speed acceleration after short intervals between printing job.	
	Setting: 0 : Disabled <default> 1 : Enabled	

0152	Light Print Display Control	
	Selects whether to display the [Light Print] button in the Functions Tab.	
	Setting: 0 : Disabled <default> 1 : Enabled	

0153	Special Paper Control Basic Display Control	
	Selects whether to display the Special Paper Control button in the Admin. Tab.	
	Setting: 0 : Disabled <default> 1 : Enabled	

0154	Minimum Print Quantity Control	
	Enables/Disables making input changes by the User Mode.	
	Setting: 0 : Disabled 1 : Enabled <default>	

0155	Counter Action Control	
	Enables/Disables copy counter & master counter (solenoid counter, software counter). This setting returns to default once the power is switched OFF.	
	Setting: 0 : Counter Disabled 1 : Counter Enabled <default>	

0159	Warning Errors Display	
	Selection to display or not to display the warning errors F02, F10 and F43.	
	Setting: 0 : No display 1 : Displays <default>	

0160	Auto Multi-Up Recovery	
	Selects if the Multi-up stays active or becomes inactive after one Multi-up operation.	
	Setting: 0 : Change to inactive <default> 1 : Stays active	

0161	Program Print Auto-Repeat Setting	
	Selection to keep the program printing active or to change to inactive after one master-making with Auto-Print OFF.	
	Setting: 0 : Changes to inactive <default> 1 : Stays active	

0162	Master Making Stand-by Cancel Time Setting	
	When Master making mode is selected, the master making stand-by condition is cancelled according to the time set. If the set time is within 60s, the master making stand-by condition (TPH pressure, Clamp opening position, Scanner lamp ON) is cancelled in 60s. If set to over 60s, the Scanner lamp ON is cancelled after 60s, and other stand-by condition is cancelled after the set time.	
	Range : 0 to 180s (0 = No stand-by) Unit : 1 = 1s (1 second) Default: 180 (180s)	
0165	RLP Mode display change timing selection	
	Timing adjustment for the display to change when using RLP auto-selection mode.	
	Range : -5 to +5 (0 to 2.5s) Unit : 1 = 0.25s (0.25 seconds) Default: 0 (1.25 seconds)	
0166	Maximum Print Quantity Control	
	Enable or disable the maximum print quantity setting, and also sets the maximum print quantity.	
	Range : 0 (disabled) to 9999 (enabled) Unit : 1 = 1 print Default: 0 (disabled)	
0167	Paper ID Auto-Repeat Control	
	Selects if the paper data stays active or become inactive after power is turned OFF or RESET button is pressed.	
	Setting: 0 : Stays active <default> 1 : Changes to inactive	
0169	Admin. Display Control	
	Selects if the Admin. Tab is displayed or not.	
	Setting: 0 : Hide 1 : Display <default>	
0170	Consumable Storage Indication	
	Selects whether the consumable storage indication is displayed on the Admin. window.	
	Setting: 0 : Hide <default> 1 : Display	
0171	Machine Clock Setting (YEAR)	
	Sets YEAR in clock. Test Mode No. 0101 must be activated after inputting test modes No. 0171 through No. 0173 to activate the new setting.	
	Range : 2000 to 2199 (Year 2000 to 2199) Unit: 1 = 1 year Default: 2000 (Year 2000)	

0172	**Machine Clock Setting (MONTH & DATE)**
	Sets MONTH/DATE in clock.
	Test Mode No. 0101 must be activated after inputting test modes No. 0171 through No. 0173 to activate the new setting.
	Left 2 digits= MONTH: 1 to 12 (January to December)
	Right 2 digits = DAY: 1 to 31 (Days 1 to 31)
	1 = 1 month, 1 = 1 day
	Default: 0101 (January 1)
0173	**Machine Clock Setting (HOUR & MINUTE)**
	Sets HOUR/MINUTE in clock.
	Test Mode No. 0101 must be activated after inputting test modes No. 0171 through No. 0173 to activate the new setting.
	Left 2 digits = HOUR: 0 to 23 (0 to 23 hours)
	Right 2 digits = MINUTE: 0 to 59 (0 to 59 minutes)
	1 = 1 hour, 1 = 1 minute
	Default : 0000 (0 hours, 0 minute)
0174	**Chinese Paper No.16 (Width data setting)**
	Sets paper width data for Chinese paper No.16
	Range : 191 to 199 (191mm to 199mm)
	Unit : 1 = 1mm
	Default : 195 (195mm)
0175	**Chinese Paper No.8(width) No.16(length) data setting.**
	Sets paper width (No.8) & length (No.16) data
	Range : 266 to 276 (266mm to 276mm)
	Unit : 1 = 1mm
	Default : 271 (271mm)
0176	**Chinese Paper No.8 (Length data setting)**
	Sets paper length data for Chinese paper No.8
	Range : 385 to 395 (385mm to 395mm)
	Unit : 1 = 1mm
	Default : 390 (390mm)
0181	**File Data Transmit Function Setting**
	Maintenance information, or print quantity information and count-charge mail activation or inactivation. This function does not exist on China specification machine.
	[MAINTENANCE INFORMATION]
	The [Maintenance Information] mail button becomes available in the Functions Tab when this test mode is selected to [1] and if the machine is equipped with NET-D;G2 optional card.
	Setting:
	0 : Inactive <default>
	1 : Active
0182	**Counter / Stock Info. Mail Control**
	Consumable stock data by e-mail is activated or deactivated by this test mode.
	This function does not exist on China specification machine.
	The [Counter/Stock Information] mail button becomes available on the Admin. Tab when this test mode is selected to [1] and if the machine is equipped with NET-D:G2 optional card.
	Setting:
	0 : Inactive <default>
	1 : Active

0183	Count Charge Display Selection	
		Selects whether to display the [COUNT CHARGE] button on the User Mode display.
		Setting: 0 : Inactive <default> 1 : Active
0184	Count Charge Mail Transmit Date Selection	
		Sets the Warning display date to indicate the Count Charge information mail sending.
		Range : 0 to 31 Unit : 1 = First date of each month Default : 0 : No warning display <default> If the date selected is 29, 30 or 31, if particular month does not include the selected date, the warning appears on the last date of the month.
0185	Counter Info Mail Setting <Not available on the China model>	
		Selects whether to enable or disable the counter mail sending function. <ID Counter Report E-Mail Sending> This test mode must be set to [1]. Net-D:G;G2 or RISO Network Card must be connected. [E-Mail] button will appear on the Count Display in the Functions Tab. <Counter Report E-Mail Sending> Both this test mode and Test Mode No. 183 must be set to [1]. Net-D:G;G2 or RISO Network Card must be connected. [Send Mail] button will appear on the Count Charge display in the Functions Tab.
		Setting: 0 : Disable <default> 1 : Enable
0186	Private MIB Function Setting (MIB = Management Information Base)	
		Selects whether to enable or disable the RISO Private MIB Function.
		Setting: 0 : Disable 1 : Enable <default>
0187	D to P Job Receiving Mode	
		Selection between Spool or Delete of the printing job when the Printer cannot receive the print job data via LAN or USB. When [0: Job Spool] is selected, the job stays even though the Printer cannot receive the data from PC. The print data is not deleted, but the PC may give time-out error, in which case some image may be lost in the printing when the Printer becomes able to receive the print job. When [1: Delete] is selected, the job is deleted when the Printer is unable to receive the data from PC. This prevents the possibility of lost image in the prints when the PC gives time-out error.
		Setting: 0 : Job spool <default> 1 : Job delete

CHAPTER 17: TEST MODE

	High Speed (180 ppm) Printing Speed Button	
0190		Selects whether to display the 150 ppm fast speed printing button.

		Setting:
		  0 : No display
		  1 : Display <default>

0199	Software Option Enable Control (Soft Digitizer)	
		The software option is enabled when the key code (8 digits) is entered and the Start key is pressed. [For Japanese Machines Only]
		Range : 00000000 to 999999999 Unit : 1 Default : 00000000

4. Image Processing / Scanning Test Mode

No.	Sensor & Switch Check	
0200	FB/AF HP sensor	
	ON: Carriage at Home position	
0201	Flatbed Original Det. Sensor	
	ON: Detecting original	
0202	Flat Bed Original Size Detection Sensor 1	
	ON: Detecting original	
0203	Flat Bed Original Size Detection Sensor 2	
	ON: Detecting original	
0204	Flat Bed Original Size Detection Sensor 3	
	ON: Detecting original	
0205	Flat Bed Original Size Detection Sensor 4	
	ON: Detecting original	
0206	Flat Bed Original Size Detection Sensor 5	
	ON: Detecting original	
0207	Flat Bed Original Size Detection Sensor 6	
	ON: Detecting original	
0208	Flat Bed Original Size Detection Sensor 7	
	ON: Detecting original	
0209	Stage Cover Sensor	
	ON: Stage cover closed	
No.	**Motor & Solenoid**	
0260	Scanner lamp	
	Switches ON/OFF scanner lamp	
No.	**Unit Check**	
0281	Carriage Home Action	
	Brings the carriage to the Home Position.	
0284	Scanner Cycle Continuous Action	
	Scanner A3 size original scanning cycle movement with auto-base-control (ABC) action. HP position - Shading compensation - Auto base control action - A3 scanning -HP position. Pressing the STOP key ends the movement and returns to Home position.	
0287	Scanner Lamp Replace Positioning	
	Moves the lamp carriage to lamp replacing position.	
0289	Scanner SHIPPING Positioning	
	Moves the lamp carriage to the machine shipping position.	
No.	**Data Setting**	
0340	Line-Copy Slice Level Adjustment in Scanning	
	Sets the slice level for line mode.	
	Range : -16 to 16 (Larger values for lighter print.) Unit : 1 Default : 0	
0341	Auto Base Control (ABC) Slice Level Adjustment	
	Sets the slice level for ABC in line mode.	
	Range : -16 to 16 (Larger values for lighter print.) Unit : 1 Default : 0	

0345	Photo/Duo Default Setting	
		Image processing selection when Photo or Duo is selected in master-making. Applies to both the master-making and printing to linked printer (RLP).
		Setting: 0 : Error-diffusion <default> 1 : Dot-Screen-1 2 : Dot-screen-2 3 : Dot-Screen-3 4 : Dot-Screen-4
0350	Halftone Curve Selection (Photo)	
		Selects the matrix forming the halftone-curve base for photo mode.
		Range : 0 to 8 Unit : 1 Default : 4
0351	Halftone Curve Selection (Dot Photo)	
		Selects the matrix forming the halftone-curve base for dot mode.
		Range : 0 to 8 Unit : 1 Default : 4
0352	Halftone Curve Selection (Duo)	
		Selects the matrix forming the halftone-curve base for DotDuo mode.
		Range : 0 to 8 Unit : 1 Default : 4
0353	Halftone Curve Selection (Dot Duo)	
		Selects the matrix forming the halftone-curve base for DotDuo mode.
		Range : 0 to 8 Unit : 1 Default : 4
0359	Trimming Slice Level Adjustment	
		Sets the slice level for the trimming.
		Range : -16 to +16 (Larger values for lighter print.) Unit t : 1 Default : -2
0361	Lighter Edge Emphasis Mode	
		Sets the edge Emphasis to weaker setting to prevent small dots on prints in scan to print using originals of the material such as recycled paper.
		Setting: 0 : Inactive <default> 1 : Active
0368	Carriage Idling Position Selection	
		Changes the idling position of the Scanner carriage.
		Setting: 0 : HP position <default> 1 : Second HP position

0380	FB Horizontal Scanning Position Adjustment	
	Adjusts the original horizontal scanning position on the flatbed for FB scanning. (Different test mode exists for AF scanning.)	
	Range : -30 to +30 (-3.0 mm to +3.0 mm) (+ is to the left) Unit : 5 (0.5mm) Default : 0 (0 mm)	
0381	FB Scanning Start Position Adjustment	
	Adjusts the original scanning start position on the flatbed (amount of top image omitted)	
	Range : -40 to +40 (-4.0mm to +4.0mm) (+ omits more top image of the original and moves the printed image up) Unit : 1 (0.1mm) Default : 0 (0mm)	
0382	FB Scanning Speed Adjustment (Elongation & Shrinkage)	
	Adjusts the original scanning speed on the flatbed (Adjusts the speed of Read Pulse Motor)	
	Range : -50 to +50 (-5.0% to +5.0%) (-) shrinks the image Unit : 1 (0.1%) Default : 0 (0%)	
0386	Center black line	
	Adds center line on the prints during master making or printout from linked printer. (The center line is added only when the original is scanned on the Flat Bed.) The setting returns back to the default when machine power is turned OFF.	
	Setting : 0 : No center line <default> 1 : Adds center line	
0399	Edge Emphasis Threshold Offset	
	Sets the offset for the edge emphasis.	
	Range : -128 to 127 Unit : 1 Default : 0	

5. Master Making / Master Disposal Test Mode

No.	Sensor & Switch Check
0400	Master positioning sensor
	ON: Master detected
0401	Master detection sensor
	ON: Master detected
0402	Master end sensor
	ON: Master end seal detected
0403	Cutter HP SW
	ON: SW not pressed (Cutter at HP)
0406	TPH Pressure Sensor
	ON: Sensor light blocked (TPH down position)
0407	Master Making Unit Top Cover Safety Switch
	ON: Switch pressed (cover closed)
0408	Master Making Unit Lock Sensor
	ON: Sensor light blocked (Master-making unit locked in position).
0409	Master Making Unit Safety Switch
	ON: SW pressed (Master making unit is set in position).
	Other safety switches must be ON for this check.
0410	Master-making-unit releasing button
	ON: Button is pressed
0420	Master Removal Sensor
	ON: Sensor light is not blocked (Master is jammed).
0421	Master Compression HP Sensor
	ON: Sensor light blocked (Master compression plate at HP)
0423	Master Disposal BOX Safety Switch
	ON: Master disposal box is set in place
	Other safety switches must be ON for this check.
0424	Master Disposal Box Set Sensor
	ON: Sensor light blocked (Master disposal box is set in place.)
0425	Master Compression Motor FG Sensor
	ON: Sensor light blocked (Encoder disc is detected)
0426	Master Removal Motor FG Sensor
	ON: Sensor light blocked (Encoder disc is detected)
No.	Motor & Solenoid
0460	Thermal Pressure Motor (CW)
	Rotates in clock-wise (CW) direction
0461	Thermal Pressure Motor (CCW)
	Rotates in counter-clock-wise (CCW) direction
0462	Write Pulse Motor in feed direction
	Rotates in master feeding direction. (CW direction)
0463	Write Pulse Motor in return direction
	Rotates in master returning direction. (CCW direction)
0464	Load Pulse Motor in feed direction
	Rotates in master feeding direction. (CW direction)
0466	Write pulse motor + Load pulse motor in feed direction
	Rotates both the Write & Load pulse motors in master feed direction
0467	Master Making Unit Release Button LED
	LED illuminates.

0470	Master Remove Motor in feed direction	
		Rotates in the direction to feed the removed master towards the master disposal box. (CW direction)
No.	**Unit Check**	
0480	Cutter Motor 1 cycle motion	
		Performs one cutting motion.
0481	Thermal Pressure Motor action (TPH down)	
		Pushes the TPH down.
0482	Thermal Pressure Motor action (TPH up)	
		Pushes the TPH up
0488	Master Making Unit Lock Solenoid ON/OFF action	
		Press START key to switch ON the Solenoid. Solenoid automatically switches OFF 10 sec. later.
0490	Master Compression Plate home positioning	
		Moves master compression plate to the home position.
0491	Master Compression Plate Protect Position	
		Moves master compression plate to the Protection Mode position.
0493	Master Compression Plate Continuous Movement	
		Repeats disposal compression action with interval of 3 seconds between the each.
0494	Cutter motor ON action (cut direction)	
		Rotates the cutter motor in the cut direction (maximum 10 seconds) **Caution:** This test mode is to check the IC driver. Disconnect the connector to the Cutter motor before the activation. Otherwise the machine will be damaged.
No.	**Data Clearing**	
0510	Master removal software count clear	
		Initializes the master removal software count to 0.
No.	**Data Check**	
0521	TPH thermistor temperature data	
		Displays the temperature of the TPH thermistor in degrees Celsius.
0524	TPH power voltage	
		Displays the voltage applied to the TPH when the power to the TPH is switched ON. Divide the displayed number by 100 (1000 = 10V).
0527	Master usage start date	
		Displays master use start date stored in Master TAG. For example, 2007/12/28 will be displayed as 2007 and 1228 alternately.
0528	Master removal software count display	
		Displays the master removal software count.
No.	**Data Setting**	
0540	Master Leading-Edge Position Adjustment	
		Adjusts return movement of the master after the master cutting action, so the Master positioning sensor is OFF when the master set action is completed.
		Range : 0 to 100 (0 mm to +10.0 mm) (+) returns the master material further back. Unit : 1 (0.1 mm) Default : 50 (5.0 mm)

0541	Write start-position adjustment
	Adjusts the master-making start position on the master material by changing the amount of rotation in CW or CCW direction the write-pulse-motor makes before the write-signal goes on.
	Range : -50 to +50 (-5.0 mm to +5.0 mm) (+ values return the master material back more before the write signal goes on. The master-making starts from closer to the leading edge of the master material. As a result, the printed image position on the paper comes up.) Unit : 1 (0.1 mm) Default : -15 (-l.5 mm)

0542	Master-making length adjustment
	Adjusts the master-making area length.
	Range : -100 to +100 (-10.0 mm to +10.0 mm) (+ values increase master-making area length) Unit : 1 (0.1 mm) Default : 0 (0 mm)

0543	Master-clamp-amount adjustment
	Adjusts the master-clamp amount under the clamp plate during master loading onto the drum. This adjustment affects the write-start position.
	Range : -100 to +100 (-10.0 mm to +10.0 mm) (+ values increase clamping amount) Unit : 1 (0.1 mm) Default : 0 (0 mm)

0544	Master cut length adjustment
	Adjusts the total length of one master (changes the master cut timing against the drum angle). 1 degree = approximately 1.5 mm

	Range : -100 to +100
	              (-10.0 degrees to +10.0 degrees)
	              (+ values increase the master length).
	Unit : 5 (0.5 degrees)
	Default : -10 (-1 degrees) For A3/Ledger Machine = default -5 (-0.5 degrees).

0545	TPH heat energy adjustment
	Adjusts the TPH heat energy.
	Range : 0 to 8 Unit : 1 Default : 4

0547	Master-making speed adjustment (Elongation & Shrinkage)
	Image elongation and shrinkage in making master. (Adjusts the speed of the write pulse motor.)
	Range : -100 to +100 (-10.0% to +10.0%) (+) elongates the image in master making. Unit : 1 (0.1%) Default : 0 (0%)

0548	Write Roller diameter compensation	
		Compensates the Write roller diameter differences between one Write roller to the other.
		Range : 2305 to 2315 (23.05 mm to 23.15 mm) Unit : 1 (0.01 mm) Default : 2310 (23.10 mm)
0570	Master Removal Roller stop timing	
		Sets the timing for the Master removal rollers to stop in relation to the Print drum angle.
		Range: -50 to +50 (-50 to +50 degrees) Unit: 1 (1 degree) Default: 0 (0 degree)
0571	Master Removal Roller stop timing (A4-wide /Letter-wide Print drum)	
		Sets the timing for the Master removal rollers to stop in relation to A4-W/Letter-W Drum angle.
		Range: -50 to +50 (-50 to +50 degrees) Unit: 1 (1 degree) Default: 0 (0 degree)
0572	Compulsory set action of Master disposal box	
		Selects whether to activate or deactivate the compulsory set action of Master disposal box after machine power ON, machine wake-up or when Master disposal box is inserted in the machine. **This test mode is not selectable from the Test Mode menu.**
		Setting : 0 : Not active <default> 1 : Active
0573	Master compression-limit position (maximum end position).	
		Sets the pulse count for the compression-limit position (maximum end position).
		Range : 106 to 163 (106 to 163 pulses) (Master compression plate 65 to 100 degrees from home position). Unit : 1 (1 pulse) Default : 155 pulses (A3/Leger Machines) 147 pulses (other than A3/Ledger Machines)
0575	Master compression duration adjustment	
		Sets the stop time duration for one master compression. (The compressing action is stopped when the time for the encoder disc to make one rotation exceeds the set time.)
		Range : 500 to 7000 (5 msec to 70 msec) Unit : 25 (0.25 msec) Default : 4000 (40 msec)
0576	Master disposal box full detection position adjustment <by pulse count>	
		Sets the pulse count for master disposal box full detection position.
		Range : 80 to 162 (80 pulse to 162 pulse) <Master compression plate angle 49 degrees to 99 degrees from home position). Unit : 1 (1 pulse) Default : 80 (49 degrees) for A3 & Ledger 146 (90 degrees) for B4, A4 & Letter, Legal.

0577	Master compression protect position adjustment	
		Selects the position of the master compression plate in Protection Mode.
		Range : -30 to +30 (-30 to +30 pulses) <21.6 degrees to 57.6 degrees from the HP position.> Unit : 5 pulses Default : 0 pulse (39.6 degrees from the HP position)
0578	Master removal motor speed selection	
		Selects the Master removal motor speed in relation to the print drum rotation speed.
		Setting: 0 : 10% slower than the Print drum speed. 1 : Same speed as the Print drum. 2 : 5% faster than the Print drum speed. 3 : 10% faster than the Print drum speed. <default> 4 : 20% faster than the Print drum speed. 5 : 30% faster than the Print drum speed.
0579	Compressing stop default position self-adjustment selection	
		Enables/disables automatic adjustment to correct the default value of the compressing stop position.
		Setting: 0 : Disable 1 : Enable <default>
0584	Master removal FULL software count selection	
		Sets the software FULL count for the master removal when the FULL detection by the software count is selected
		Range : 50 to 100 (50 to 100 masters) Unit : 10 (10 masters) Default : 100 (100 masters)
0585	Master removal software count Disable/Enable selection	
		Selection to Enable (use the software count) or Disable (use the conventional FG sensor and Master compression plate timing) the Master removal software count system.
		Setting: 0 : Disable 1 : Enable <default>

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6. Paper Feeding / Paper Ejection Test mode

No.	Sensor & Switch Check
0600	Paper detection sensor
	ON: Sensor light reflected (paper detected)
0601	Paper size detection sensor
	ON: Sensor light reflected (paper detected)
0602	Elevator upper limit sensor A
	ON: Sensor light blocked
0603	Elevator upper limit sensor B
	ON: Sensor light blocked
0604	Elevator lower limit sensor
	ON: Sensor light blocked (Sensor detecting paper feed tray at maximum down position)
0605	Paper sensor
	ON: Sensor light reflected (paper detected)
0606	Paper ejection sensor
	ON: Sensor light reflected (paper detected)
0607	Paper feed tray upper safety switch
	ON: Safety switch not triggered
0608	Paper feed tray lower safety SW
	ON: Safety switch not triggered
0609	Paper feed tray button
	ON: Button (switch) is pressed
0610	Paper Volume Sensor A
	ON: Sensor light path blocked
0611	Paper Volume Sensor B
	ON: Sensor light path blocked
0612	Paper ejection FG sensor
	ON: Sensor light blocked (detecting encoder disc)
0613	Card feeder (OPTION) attachment detection
	ON: Card feeder exists
0614	Paper feed pressure sensor
	ON: Paper feed pressure lever is at CARD.
0618	Paper ejection wing HP sensor
	ON: Sensor light blocked (blocked by shield plate)
No.	Motor & Solenoid
0660	Paper ejection motor
	Rotates the motor
0661	Suction fan
	Activates the fan
0662	Separation fan
	Activates the fan
0666	Paper ejection wing pulse motor (CW)
	Rotates the pulse motor in clockwise direction
0667	Paper ejection wing pulse motor (CCW)
	Rotates the pulse motor in counter-clockwise direction
0668	Feed Tray Button LED
	The LED illuminates
0669	Paper ejection pre-suction fan
	ON - OFF action. Stops by pressing STOP key
No.	Unit Check
0680	Paper ejection area Fan check
	Turns ON the Separation Fan and Suction Fan at same time.

0681	Paper feed tray maximum up positioning
	Raises the paper feed tray to the maximum up position.
0682	Paper feed tray elevation up & down
	Raises and lowers the paper-feed tray repeatedly
0683	Paper feed tray maximum down positioning
	Lowers the paper feed tray to the maximum down position.
0684	Separation Pump Solenoid ON/OFF Action
	Presses START key to turn ON the solenoid. The solenoid automatically switches OFF after 10 seconds.
0687	Paper feed reverse-rotation prevention solenoid ON/OFF action
	Presses START key to turn ON the solenoid. The solenoid automatically switches OFF after 10 seconds.
0688	Paper feed clutch ON/OFF action
	Presses START key to turn ON the clutch. The clutch automatically switches OFF after 10 seconds.
0689	Scraper clutch (option) ON/OFF action
	Presses START key to turn ON the clutch. The clutch automatically switches OFF after 10 seconds.
0690	Guide roller release solenoid ON/OFF action
	Presses START key to turn ON the solenoid. The solenoid automatically switches OFF after 10 seconds.
0703	Paper ejection wing HP positioning
	Positions the paper ejection wing to the home position.
0704	Paper ejection wing fixed position
	Fixes the paper wing position to the position selected by test mode No. 0780.
0705	Paper sensor automatic adjustment <Multi-feed detection sensitivity>
	One sheet of clean white paper, which the customer uses the must, be used during this procedure.
0708	Elevator motor ON action
	Rotates the Elevator motor in the elevating direction (maximum 10 seconds) **Caution:** This test mode is to check the IC driver. Disconnect the connector to the Elevator motor before the activation. Otherwise the machine will be damaged.

No.	Data Check
0721	Paper width display (mm)
	Displays the potentiometer adjustment result in millimeter value to the first decimal.
0722	Paper sensor A/D value display
	Displays the A/D value of the Paper sensor.

No.	Data Setting
0740	Elevator upper-limit position selection.
	Selects the paper-feed-tray upper-limit position. If 0 (Auto) is selected, the upper limit position is linked to the paper feed pressure lever position. **If 1, 2 or 3 is selected, the upper limit stop position is fixed.**
	Setting: 0 : Auto - Linked to the Pressure adjust lever <default> 1 : Standard paper position 2 : Card paper position 3 : Custom paper position

0741	**Paper feed clutch ON angle (NORMAL)**
	Adjusts the drum angle timing for activating the Paper feed clutch. This test mode applies only when the Paper feed pressure lever is set to <Normal>.
	Range : -200 to +200 (-20.0 to +20.0 degrees) <+ values delay clutch ON timing > Unit : 5 (0.5 degrees) Default : 0 (0 degree)
0742	**Paper feed clutch OFF angle (NORMAL)**
	Adjusts the drum angle timing for deactivating the Paper feed clutch. This test mode applies only when the Paper feed pressure lever is set to <Normal>.
	Range : -200 to +200 (-20.0 to +20.0 degrees) <+ values delay clutch OFF timing > Unit : 5 (0.5 degrees) Default : 0 (0 degree)
0743	**Paper feed retries after one paper feed action on 1st paper feed area.**
	Sets the number of times the first paper feeding is tried when no paper feed occurs.

	Setting:
	1 : No paper feed retry action. <default>
	      (The machine displays paper feed jam on the first paper feed try.)
	2 : One more paper feed action.
	      (Paper jam display if no paper feeds after second paper feed try.)
	3 : Two more tries.
	      (Paper jam display if no paper feed after third paper feed try.)

0744	**Paper Feed Clutch OFF Angle (CARD)**
	Adjusts the drum angle timing for deactivating the Paper feed clutch. This test mode applies only when the Paper feed pressure lever is set to <Card>.
	Range : -200 to +200 (-20.0 to +20.0 degrees) <+ values delay clutch OFF timing > Unit : 5 (0.5 degrees) Default : 0 (0 degree)
0745	**Paper feed clutch ON angle (CARD)**
	Adjusts the drum angle timing for activating the Paper feed clutch. This test mode applies only when the Paper feed pressure lever is set to <Card>.
	Range : -200 to +200 (-20.0 to +20.0 degrees) <+ values delay clutch ON timing > Unit : 5 (0.5 degrees) Default : 0 (0 degree)
0748	**Scraper clutch OFF angle (Optional card feeder)**
	Adjusts the drum angle timing for deactivating the Scraper clutch. This test mode applies only when the Optional card feeder is attached.
	Range : -100 to +100 (-10.0 to +10.0 degrees) <+ values delay clutch OFF timing > Unit : 5 (0.5 degrees) Default : 0 (0 degree)
0750	**Paper feed reverse-rotation prevention solenoid Activate/Deactivate selection (Optional card feeder)**
	Activates or Deactivates the Paper feed reverse-rotation prevention solenoid. This test mode applies only when the Optional card feeder is attached.
	Setting: 0 : Deactivate 1 : Activate <default> (Activates when the Paper feed pressure lever is selected to CARD.)

0751	**Paper feed jam detection angle. (Paper IN)**
	Adjusts the drum angle timing for detecting the paper feed jam by paper sensor. (Paper IN)
	Range : -200 to +200 (-20.0 to +20.0 degrees) <+ values delay detection timing > Unit : 5 (0.5 degrees) Default : 0 (0 degree)
0752	**Paper feed jam detection angle. (Paper OUT)**
	Adjusts the drum angle timing for detecting the paper feed jam by paper sensor. (Paper OUT)
	Range : -200 to +200 (-20.0 to +20.0 degrees) <+ values delay detection timing > Unit : 5 (0.5 degrees) Default : 0 (0 degree)
0753	**Paper receiving jam detection angle. (Paper IN)**
	Adjusts the drum angle timing for detecting paper receiving jam by Paper ejection sensor. (Paper IN)
	Range : -500 to +500 (-50.0 to +50.0 degrees) <+ values delay detection timing > Unit : 5 (0.5°) Default : 0 (0°)
0754	**Paper receiving jam detection angle. (Paper OUT)**
	Adjusts the drum angle timing for detecting paper receiving jam by Paper ejection sensor. (Paper OUT)
	Range : -500 to +500 (-50.0 to +50.0 degrees) <+ values delay detection timing > Unit : 5 (0.5°) Default : 0 (0°)
0755	**Paper ejection motor speed adjustment (Proof-Print)**
	Adjusts the speed of the suction belt in relation to the Print drum speed in Proof Print printing.
	Setting: 0 : 3.0 times the drum speed. 1 : 3.4 times the drum speed. <default> 2 : 3.7 times the drum speed. 3 : 4.0 times the drum speed. 4: 4.5 times the drum speed.
0756	**Paper ejection motor speed adjustment (Print speed No.1)**
	Adjusts the speed of the suction belt in relation to the Print drum speed of 60 rpm.
	Setting: 0 : 1.5 times the drum speed. 1 : 1.7 times the drum speed. 2 : 1.8 times the drum speed. <default> 3 : 1.9 times the drum speed. 4: 2.0 times the drum speed.
0757	**Paper ejection motor speed adjustment (Print speed No.2)**
	Adjusts the speed of the suction belt in relation to the Print drum speed of 80 rpm.
	Setting: 0 : 1.3 times the drum speed. 1 : 1.5 times the drum speed. 2 : 1.6 times the drum speed. <default> 3 : 1.7 times the drum speed. 4: 1.8 times the drum speed.

0758	Paper ejection motor speed adjustment (Print speed No.3)	
		Adjusts the speed of the suction belt in relation to the Print drum speed of 100 rpm.
		Setting: 0 : 1.1 times the drum speed. 1 : 1.3 times the drum speed. 2 : 1.4 times the drum speed. <default> 3 : 1.5 times the drum speed. 4: 1.6 times the drum speed.
0759	Paper ejection motor speed adjustment (Print speed No.4)	
		Adjusts the speed of the suction belt in relation to the Print drum speed of 120 rpm.
		Setting: 0 : 1.0 times the drum speed. 1 : 1.1 times the drum speed. 2 : 1.2 times the drum speed. <default> 3 : 1.3 times the drum speed. 4: 1.4 times the drum speed.
0760	Paper ejection motor speed adjustment (Print speed No.5)	
		Adjusts the speed of the suction belt in relation to the Print drum speed of 130 rpm.
		Setting: 0 : 1.0 times the drum speed. 1 : 1.1 times the drum speed. 2 : 1.2 times the drum speed. <default> 3 : 1.3 times the drum speed. 4: 1.4 times the drum speed.
0761	Paper ejection motor speed adjustment (Print speed No.5)	
		Adjusts the speed of the suction belt in relation to the Print drum High Speed of 180 rpm.
		Setting: 0 : 1.0 times the drum speed. 1 : 1.1 times the drum speed. <default> 2 : 1.2 times the drum speed. 3 : 1.3 times the drum speed. 4: 1.4 times the drum speed.
0779	Paper ejection wing position compensation	
		Compensates the amount of the Paper ejection wing movement.
		Range : -20 to +20 (-20 pulses to +20 pulses) Unit : 1 (1 pulse) Default : 9 (9 pulses)
0780	Paper ejection wing fixed-position selection	
		Fixes the paper-ejection wing position when custom position is selected by the operator. The adjusted position also applies to test mode No.0704.
		Range : 0 to 2150 (0 pulse to 2150 pulses) Unit : 1 (1 pulse) Default : 1434 (1434 pulses)
0788	Paper feeder Active/Inactive selection	
		Allows master making and printing action without Paper feed tray movement. The selected setting is not stored. The setting returns to the default once the machine goes out of test mode.
		Setting: 0 : Inactive <default> 1 : Active

7. Print Drum / Printing Test Mode

No.	Sensor & Switch Check
0801	Position-B sensor
	ON: Sensor blocked (Machine is at Position-B)
0802	Main motor FG sensor
	ON: Detecting the FG disc.
0803	Clamp sensor A
	ON: Sensor light blocked.
0804	Clamp sensor B
	ON: Sensor light blocked.
0806	Master loading sensor
	ON: Detecting master
0807	Print drum lock sensor
	ON: Drum lock lever is at lock position.)
0809	Ink sensor
	ON: Detecting ink
0810	Overflow sensor
	ON: Detecting ink
0811	Ink bottle set switch
	ON: Switch is pressed
0812	Inking motor FG sensor
	ON: Detecting FG disc
0816	Drum free rotation button
	ON: Button (switch) is pressed
0817	Front door set sensor
	ON: Front door is closed
0818	Print drum release button
	ON: Button is pressed
0819	Print drum connection signal
	ON: Print drum is connected
0820	Drum safety switch
	ON: Print drum is set in position (switch pressed).
0830	Pressure HP sensor
	ON: Sensor light blocked.
0831	Vertical print positioning HP sensor
	ON: Sensor light blocked.
0832	Horizontal Home Position Sensor
	ON: Sensor light blocked.
No.	Motor & Solenoid
0861	Main motor action (30 rpm)
	Print drum rotation at speed of 30rpm.
0863	Clamp motor action (Normal direction)
	Rotates the Clamp motor in counter-clockwise direction
0864	Clamp-motor action (Opposite direction)
	Rotates the Clamp motor in clockwise direction
0866	Print-drum release button LED
	Illuminates the LED
No.	Unit Check
0880	Print drum rotation (variable speed)
	Rotates the Print drum at the speed selected by the printing speed key. 1=60rpm / 2=80rpm / 3=100rpm / 4=120rpm / 5=130rpm

0881	Print drum stop at Position-A	
		Rotates and stops the Print drum at Position-A.
0882	Inking motor ON action	
		Activates the Inking motor (maximum 10 seconds). **Caution:** This test mode is to check the IC driver. Disconnect the connector to the Inking motor before the activation. Otherwise the machine will be damaged.
0883	Clamp home positioning action	
		Resets the clamp unit to the home position.
0884	Clamp unit cycle action (3 step cycle)	

		Make sure to bring the print drum to Position-A by test mode No. 0881 before activating this test mode to prevent machine damage.
		Press START key each time to perform the operations specified below.
		Step 1:
		  From clamp plate closed position to clamp open.
		Step 2:
		  From Clamp open position to Position-A compensation action.
		Step 3:
		  From Position-A compensation action to clamp closed position.

0885	Print drum lock solenoid ON/OFF action	
		Press START key to switch ON the drum lock solenoid. The solenoid switches OFF automatically 10 seconds later.
0886	Pressure solenoid ON/OFF action.	
		Press START key to switch ON the pressure solenoid. The solenoid switches OFF automatically 10 seconds later.
0887	Print drum inking action	

		Performs the inking operations in following sequence by one press of the START key:
		  1. Pumps in the ink into print drum while rotating the drum until the Ink Sensor detects Ink, without pressure roller touching the Print drum.
		  2. Makes a confidential master on the Print drum.
		  3. Rotates the Print drum with the Pressure Roller pressing against the print drum.
		  4. The print drum stops at Position-B.

0888	Print drum ink-drainage action	

		Performs the ink drainage from the print drum in following sequence by one press of the START key:
		  1. Makes TPH test mode image on the master and wraps around the print drum.
		  2. Printing is started with no inking motion and with the ink sensor deactivated.
		  3. The printing is continued until the STOP key is pressed.
		  4. The print drum stops at Position-B.

0889	G-Lever mounting position	
		Stops the machine at G-Lever mounting position (Print drum at 108.4 degrees from Position-A). * This is the test mode to activate when mounting the removed G-Lever back on the machine.
0890	Print drum ink-code copy	
		Copies the ink information (ink color, ink category, etc.) onto the Print drum EEPROM from the Ink TAG. * Wait over 2 seconds after inserting the ink bottle in the Print drum before executing the test mode.

0892	Position-B stop (The position in which the pint drum can be removed from the machine.)
	Stops the print drum at machine Position-B. (The test mode can be activated with or without print drum in the machine.)
0896	Print drum free-rotation
	Print drum rotates at 10rpm. Rear cover safety switch must be ON to activate. Buzzer sounds until the Rear cover safety switch becomes ON.
0900	Vertical print position home positioning
	Moves the vertical print position to home position.
0901	Vertical print position one cycle action.
	Following one-cycle action is made by driving the Vertical print positioning pulse motor.. 1. Brings the vertical print position to home position. 2. Moves the vertical print position to maximum top position (+16mm) and stops for 1 second. 3. Brings the vertical print position to home position. 4. Moves the vertical print position to maximum down position (-16mm) and stop for 1 second. 5. Brings the vertical print position to home position.
0902	Print Drum Horizontal Home Action
	Make sure to bring the print drum to Position-A by test mode No. 0881 before activating this test mode to prevent machine damage. Returns the print drum horizontal position to the center (home position).
0903	Print Drum Horizontal Cycle Action
	Make sure to bring the print drum to Position-A by test mode No. 0881 before activating this test mode to prevent machine damage. Performs a single horizontal movement cycle.
0904	Printing pressure home positioning.
	Brings the printing pressure to the center position.
0905	Printing pressure 1 cycle action
	Following one-cycle action is made by driving the Pressure control pulse motor. 1. Brings the printing pressure to home position. 2. Change the printing pressure to the maximum pressure position (+10500 pulses) and stops for 1 second. 3. Brings the printing pressure to home position. 4. Change the printing pressure to the minimum pressure position (-9300 pulses) and stops for 1 second. 5. Brings the printing pressure to home position.
0908	Printing pressure maintenance positioning.
	Drives the Pressure control pulse motor -8130 pulses to release the pressure on the Pressure spring. **This is the position to remove the Pressure spring.**
No.	Data Check
0921	Print drum angle display
	Displays the present print-drum angle. (example: 3600 = 360 degrees)
0923	Print drum ink temperature display (Degrees Celsius)
	Displays the temperature of the ink in the print drum in degrees Celsius.

0925	Ink remaining volume display
	Displays the amount of ink left in the ink tube in percentage (%). [Ink TAG information]

0926	Inking motor FG count
	Displays the inking motor FG count value read from the ink cartridge tag. (1 count = 0.1 ml)

0928	Displays the Ink cartridge using start date.
	Displays the Ink usage starting date. Example: For year 2007 December 28th, the display indicates 2007 and 1228 alternately.

No.	Data Setting
0940	Master loading sensor detection timing adjustment
	Adjusts the angle to detect master on the print drum by master loading sensor.
	Range : -200 to +100 (-20.0 to +10.0 degrees) (+ delays the detection timing) Unit : 5 (0.5 degrees) Default : 0 (0 degrees)
0941	Print drum Position-A adjustment
	Adjusts the print-drum Position-A stop position.
	Range : -40 to +40 (-4.0 to +4.0 degrees) <+ moves drum forward in over-run direction> Unit : 5 (0.5 degrees) Default : 0 (0 degrees)
0942	Print drum Position-B adjustment
	Adjusts the print-drum Position-B stop position.
	Range : -40 to +40 (-4.0 to +4.0 degrees) <+ moves drum forward in over-run direction> Unit : 5 (0.5 degrees) Default : 0 (0 degrees)
0943	Inking time adjustment (when over X% of ink is consumed from the ink tube.)
	Timer setting before the Replace Ink Cartridge message comes up (when the ink consumption amount from the tube is over X%, which is set by test mode No.0948).
	Range : 5 to 60 (5 to 60 seconds) Unit : 1 (1 second) Default : 10 (10 seconds)
0944	Inking time adjustment (right after the ink tube is replaced)
	Timer setting before the Replace Ink Cartridge message comes up (right after empty ink tube is replaced with a new one.)
	Range : 5 to 60 (5 to 60 seconds) Unit : 1 (1 second) Default : 30 (30 seconds)
0945	Ink overflow detection frequency adjustment
	Sets the number of detection times for the Overflow sensor to determine that an ink overflow has occurred in the Print drum.
	Range : 1 to 200 (1 to 200 times) Unit : 1 (1 time) Default : 50 (50 times)

0946	Inking time adjustment (when under X% of ink is consumed from the ink tube.)	
		Timer setting before the Replace Ink Cartridge message comes up (when the ink consumption amount from the tube is under X%, which is set by test mode No.0948).
		Range : 1 to 60 (1 to 60 seconds) Unit : 1 (1 second) Default : 15 (15 seconds)
0947	Inking drum rotation quantity (while inking) after ink tube is pulled out and put back.	
		Drum rotation quantity while inking after the ink tube is pulled out and put back.
		Range : 0 to 10 (0 to 10 rotations) Unit : 1 (1 rotation) Default : 1 (1 rotation)
0948	Selection of X% for test modes No. 0943 and 0946.	
		The X% selection relates to that of test modes No. 0943 and 0946.
		Range: 1 to 100 (1 to 100%) Unit : 1 (1%) Default : 80 (80%)
0949	Print pressure setting for Proof-read printing (Black Ink)	
		Selects print pressure for printing the proof-read print after each master-making. (Black Ink)
		Setting: 0 : extra light 1 : light <default> 2 : normal 3 : dark 4 : extra dark
0950	Print pressure setting for Proof-read printing (color ink)	
		Selects print pressure for printing the proof-read print after each master-making. (Color Ink)
		Setting: 0 : extra light 1 : light 2 : normal <default> 3 : dark 4 : extra dark
0951	Ink color code	
		Ink color code setting on inkless print drum.
		Setting: 0 : No Selection (default) 64: Black 1 65: Blue 1 66: Blue 2 67: Blue 3 68: Blue 4 69: Red 1 70: Red 2 71: Red 3 72: Red 4 73: Green 1 74: Green 2 75: Green 3 76: Yellow 1 77: Yellow 2 78: Brown 1 79: Brown 2 80: Purple 1 81: Purple 2 82: Grey 1 83: Grey 2 84: Light grey 1 85: Light grey 2 86: Orange 1 87: Orange 2 88: Gold 1 89: Gold 2 90: Silver 1 91: Silver 2 92: Pink 1 93: Pink 2 94: Custom

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0956	Automatic Print Position Recovery Setting Selection	
		Selects the condition for automatic print position reset after master-making or renewal. * After automatic reset, a proof copy is output and the Copy Count is incremented. * In dual-color printing, an automatic reset is performed after master-making and a proof copy is output.
		Setting: 0: (No automatic reset) * Returns to center after master-making/renewal 1: (Automatic reset only after master renewal) <default> 2: (Automatic reset after both master-making and renewal)
0958	Automatic Print Position Recovery Setting Condition	
		Selects the automatic reset setting details when Test Mode No. 0956 is selected to [1] or [2].
		Setting: 0: The print drum returns to the vertical & horizontal home position and makes master, and then moves back to the selected printing position. <default> 1: The print drum remains at the selected vertical printing position but only the horizontal printing position resets to the center and makes the master, and then moves the horizontal printing position to the selected printing position.
0970	Vertical print position HP adjustment	
		Sets the HP (center) position of the vertical print position.
		Range : -50 to +50 (-5.0 mm to +5.0 mm) < + values move the printed image up > Unit : 1 (0.1 mm) Default : 0 (0 mm)
0972	Printing pressure HP adjustment	
		Offsets the HP (center) position of the printing pressure.
		Range : -500 to +500 (-5000 pulses to + 5000 pulses) < + values move print pressure table up -- increases print pressure > Unit : 1 (10 pulses) Default : 0 (0 pulse)
0973	Horizontal HP Adjustment (Print Drum)	
		Sets the offset value for the horizontal print home position (data stored in print drum PCB). * This setting should be made only when required by the print drum. * Horizontal print HP adjustments are made based on a value equal to the sum of the values in Test Mode No. 973 and No. 974. This value is between –20 and +20.
		Range : –20 to +20 (–2.0 to +2.0 mm) < + moves to the Left > Setting unit: 1 (0.1 mm) Default: 0 (0 mm)
0974	Horizontal HP Adjustment (Machine)	
		Sets the offset value for the horizontal print home position. * This setting should be made only when required by the machine. * Horizontal print HP adjustments are made based on a value equal to the sum of the values in Test Mode No. 973 and No. 974. This value is between –20 and +20.
		Range : –20 to +20 (–2.0 to +2.0 mm) < + moves to the Left > Setting unit: 1 (0.1 mm) Default: 0 (0 mm)

0975	Printing Pressure HP Position Adjustment (Machine)	
	Sets the offset value for the print pressure position. * This setting should be made only when required by the machine. * The printing pressure HP adjustments are made based on a value equal to the sum of the values in other printing pressure HP position adjustment test modes. This value is between –500 and +500.	
	Range : -500 to +500 (–5000 to +5000 pulses) < + increases the print pressure > Setting unit: 1 (10 pulses) Default: 0 (0 pulse)	
0977	Vertical and Horizontal Motion Distance Switching	
	Selects whether the motion increment is set to 0.1 mm or 0.5 mm if the fine adjustment button is not displayed.	
	Setting: 　0: 0.5 mm <default> 　1: 0.1 mm	
0978	Number of Idling Selection	
	Selection of the print drum rotation quantity table between Japan and Overseas. <The Overseas setting makes more drum idling rotation after the machine is not in use for 4 or more days.>	
	Setting: 　0: Japan 　1: Overseas <default>	
0979	Pressure Table Configuration	
	Shifts the printing density table to darker printing.	
	Setting: 　0 : Normal density table. <default> 　1 : 1.5 times darker. 　2 : 2.0 times darker.	
0989	Interval Upper Limit Setting	
	Selects the maximum print drum rotation between printing in the Interval printing mode.	
	Setting: 　0 : maximum 10 times <default> 　1 : maximum 99 times	

8. Protected Area Test Mode

No.	Unit Check
1102	**Paper size VR adjustment**
	Sets a VR value at paper guide fence width of 105 mm (A6 paper width).
1103	**Paper size VR adjustment**
	Sets a VR value at paper guide fence width of 297 mm (A3 paper width).
1104	**LCD Base Point Compensation**
	Perform the following adjustment in the order given. 1) Touch 3 diagonal markings. <Left Top - Left Bottom - Right Bottom> 2) On the confirmation display, touch the 3 marking to confirm the adjustment.

No.	Data Clear
1198	**Memory Initialization**
	Initializes the memory on the Mechanical Control PCB. **(This test mode is not included in the test mode list on the panel display.)**

No.	Data Setting
1201	**Paper Size Selection**
	Selects the paper size detection unit in either INCH, MILLIMETER or CHINESE.
	Setting: 0 : Millimeter <default on all machines other than Chinese or USA specification> 1 : Chinese paper sizes <default on Chinese specification machines> 2 : Inch <default on USA specification machines>
1210	**Drum Code Entry**
	Sets the print drum information on the EEPROM of the Drum PCB.

	Range : 0 to 255
	Setting: 129: A3
	         130: B4
	         132: A4-R / Letter-R
	         133: Ledger
	Default : 0

1211	**Drum Serial Code Entry 1**
	Inputs the first 4 -digits of the print drum serial number
	Range : 0 to 9999 Unit : 1 Default : 0
1212	**Drum Serial Code Entry 2**
	Inputs the last 4 -digits of the print drum serial number
	Range : 0 to 9999 Unit : 1 Default : 0

1214	Drum Color Code Entry	
		Sets the print drum color information on the EEPROM of the Drum PCB.
		Setting: 0: Not Specified <default> 1: Black 2: Blue 3: Medium Blue 4: Red 5: Bright Red 6: Riso Federal Blue 7: Purple 8: Riso Marine Red 9: Burgundy 10: Green 11: Teal 12: Brown 13: Yellow 14: Light Grey 15: Grey 16: Fluorescence Pink 17: Fluorescence Orange 18: Orange 19: Flat Gold 20: Hunter Green 21: Crimson 30: Custom 31: Order (with specified paper) 32: Order (without specified paper) 63: Any Color
1229	RLP Activation/Deactivation	
		Activates or deactivates the RLP function.
		Setting: 0 : Inactive <default> 1 : Active
1231	Panel Contrast Adjustment	
		Adjusts the contrast of the operation panel display.
		Range : -120 to +120 Unit : 1 Default : 0
1232	Panel Back-light Adjustment	
		Adjusts the back-light of the operation panel display.
		Range : 50 to 115 Unit : 1 Default : 85
1233	TPH master-making horizontal position adjustment	
		Sets the TPH master-making position to the center
		Range : -30 to +30 (-3.0mm to +3.0mm) < + values bring the master-making image to the left > Unit : 1 (0.1mm) Default : 0 (0mm)
1234	TPH resistance input	
		Sets TPH resistance.
		Range : 1200 to 5920 (1200 to 5920 ohm) <600 x 600 dpi> Unit : 1 (1 ohm) Default : 1200 (1200 ohm)
1238	Air blow setting (180ppm)	
		Activates or deactivates the air blow setting at 180ppm printing.
		Setting: 0 : Inactive <default> 1 : Active

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1247	Job Separator operating mode selection	
		Selection of the Job Separator operating mode when the new optional Job Separator IV ; NIII is connected.
		Setting: 0 : Conventional operating mode \<default\> ---- Tape is fed only after the printing action stops. 1 : High speed operating mode ------ Tape is fed while the printing action is ON.
1248	Test mode printing printing-pressure compensation adjustment	
		This printing pressure compensation parameter applies only on the test mode printing action. The printing pressure adjustment by Test Modes No.0972 and 0974 becomes inactive in test mode prints.
		Range : -930 to +1050 (-9300 pulse to +10500 pulse) Unit : 1 (10 pulse) Default : 0 (0 pulse) - No compensation

9. Options (AF) Test Mode

No.	Sensor & Switch Check
3000	AF-unit connection signal check
	ON: AF connected
3001	AF Original registration sensor
	ON: Original detected
3002	AF Original IN sensor
	ON: Original detected
3003	AF Original OUT sensor
	ON: Original detected
3004	AF original detection sensor
	ON: Original detected
3005	AF Cover Set SW
	ON: AF closed
3006	AF Original Size Sensor 1
	ON: Original detected
3007	AF Original Size Sensor 2
	ON: Original detected
3008	AF Original Feed Cover Sensor
	Sensor ON (cover closed) <Duplex AF only>
3009	AF Original Width Detection Sensor 1
	Sensor ON (width less than 235mm) <Duplex AF only>
3010	AF Original Width Detection Sensor 2
	Sensor ON (width larger than 270mm or less than 190mm) <Duplex AF only>
3011	AF Original End Detection Sensor
	Sensor ON (original detected) <Duplex AF only>
3012	AF Flipper Sensor
	Sensor ON (original detected) <Duplex AF only>
No.	Motor & Solenoid
3030	AF read pulse-motor CW
	Activates the AF read pulse-motor in original feeding direction. <for Simplex AF6> * For Duplex AF, Test Mode No.3033 movement is made.
3032	AF Read/Switch-back Pulse Motor
	AF original feed & switch-back pulse motor operation. <Duplex AF only>
3033	AF Transfer Pulse Motor
	AF transfer pulse motor operation. <This test mode is for Duplex AF.> * For Simplex AF6, Test Mode No.3030 movement is made.

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No.	Unit Check
3041	AF one cycle action with no Auto Base Control
	Performs one AF scanning cycle. 1. Picks up original. 2. Scanner unit moves to home position. 3. Shading compensation. 4. Scanner unit moves to scanning position. 5. Feeds and ejects the original. 6. Carriage returns to the home position. *** Note: For Duplex AF, Test Mode No. 3077 selects whether to run Simplex or Duplex.**
3042	AF original feed action
	Performs AF original feed operation *** Note: For Duplex AF, Test Mode No. 3077 selects whether to run Simplex or Duplex.**
3044	Original IN Sensor Sensitivity Adjustment
	Sensitivity adjustment on the Original IN Sensor. <Simplex AF6 only>
3045	AF Original Guide Minimum Width
	Sets the VR value when the paper guides are brought to the minimum-width position. <Simplex AF6 only>
3046	AF Original Guide Maximum Width
	Sets the VR value when the paper guides are brought to the maximum-width position. <Simplex AF6 only>
3047	AF Original Feed Clutch Check
	Activates the original feed clutch for 10 seconds. <Duplex AF only>
3048	AF Original Feed Base Solenoid Check
	Activates the original feed base solenoid for 10 seconds. <Duplex AF only>
3049	AF Flipper Solenoid Check
	Activates the flipper solenoid for 10 seconds. <Duplex AF only>
No.	Data Check
3060	AF Guide width A/D data
	AF Guide width AF 10 bit data. <Simplex AF6 only>
3061	AF Original Size Code
	Displays the size of the original set on AF unit. **< > = Simplex AF6 only.** **< Milimeter Machine >** 00: No detection 01: A3 02: B4 03: A4 04: A4-R 05: B5 06: B5-R 07: A5 08: A5-R **<09: B6>** 19: Foolscap **<53: Custom>** **< Inch Machine >** 00: No detection 13: Ledger 14: Legal 15: Letter 16: Letter-R 17: Statement 18: Statement-R 53: Custom

No.	Data Setting
3070	AF Mirror carriage scanning position adjustment.
	Adjusts the position of the mirror carriage for AF scanning.
	Range : -20 to +20 (-2.0mm to +2.0mm) < + values move the Mirror carriage back --- moves the image up > Unit : 1 (0.1 mm) Default : 0 (0 mm)
3071	AF Mirror carriage position adjustment for Auto-Base-Control. (Simplex AF6 only)
	Adjusts the position of the mirror carriage for AF Auto Base Control scanning.
	Range : 0 to +30 (0mm to +3.0mm) < + values move the Mirror carriage back --- moves the image up > Unit : 1 (0.1 mm) Default : 0 (0 mm)
3072	AF scanning horizontal centering position adjustment
	Adjusts the horizontal scanning position when the original is scanned on AF.
	Range : -30 to +30 (-3.0mm to +3.0mm) < + values move the image to the left > Unit : 5 (0.5 mm) Default : 0 (0 mm)
3073	AF Scanning start-position adjustment.
	Adjusts the scanning start position against the original when the original is scanned using the AF. (Adjusts how much area to skip from the top of the original when the scanning starts.)
	Range : -60 to +60 (-6.0mm to +6.0mm) < + values move the image up > Unit : 1 (0.1 mm) Default : 0 (0 mm)
3074	Scanning-speed adjustment to control Elongation & Shrinkage in scanning. (AF scanning)
	Adjusts the speed of the AF-Read pulse motor to control the speed of the Original through the AF unit.
	Range : -50 to +50 (-5.0% to +5.0%) < + values elongate the image > Unit : 1 (0.1%) Default : 0 (0 %)
3076	AF Scanning End Signal Output Timing
	Adjusts original scanning end position.
	< Simplex AF6 > Range: –63 to +63 (–6.3 mm to +6.3 mm) < + values for adjustment down > **< Duplex AF >** Range: –30 to +30 (–3.0 mm to +3.0 mm) < + values for adjustment down > Unit: 1 (0.1 mm) Default: 0 (0 mm)
3077	AF Original Feed Sequence Change <Duplex AF only>
	AF original transfer action selection (1 cycle action).

	Setting:
	    0: Simplex <default>
	    1: Duplex
	    2: Simplex (face-down) for ejection to Sorter.

10. Options (Job Separator) Test Mode

No.	Sensor & Switch Check
3100	Job separator tape jam sensor
	ON: Jammed tape is detected
3101	Job separator tape detection sensor
	ON: Tape is detected
3102	Job separator power switch
	ON: Power is supplied to the Job separator
3103	Job separator connection signal
	ON: Job separator is connected
No.	**Unit Check**
3140	Tape output (Job Separator)
	Outputs one tape.
No.	**Data Setting**
3170	Stamping quantity
	Sets number of times the stamper stamps per one tape cut by test mode No. 3140.
	Setting : 0: No stamping <default> 1: One stamping 2: Two stamping
3171	Activate or deactivate the tape jammed message
	Activates or deactivates the Tape Jam message while using the Job Separator.
	Setting : 0: Does not show the jammed message. 1: Shows the jammed message. <default>
3172	Print drum idle rotation when Job separator ejecting tape at Print Speeds 4 and 5.
	Selection of whether the Print drum idle rotates when the Job Separator ejects tape at printing speeds of 4 and 5. < When optional Job Separator IV ; NIII is connected. >
	Setting : 0: No idle rotation 1: Idle rotation active <default>
3173	Job separator tape cut timing adjustment (When the machine is picking up speed)
	Adjusts the tape cut timing when the machine is picking up speed. < When optional Job Separator IV ; NIII is connected. >
	Range : -200 to +200 (-20ms to +20ms) Unit : 10 (1 ms) Default : 0 (0 mm)
3174	Job separator tape cut timing adjustment (Printing speed 1)
	Adjusts the tape cut timing when the machine is printing at speed 1. < When optional Job Separator IV ; NIII is connected. >
	Range : -200 to +200 (-20ms to +20ms) Unit : 10 (1 ms) Default : 0 (0 mm)

3175	Job separator tape cut timing adjustment (Printing speed 2)	
	Adjusts the tape cut timing when the machine is printing at speed 2. < When optional Job Separator IV ; NIII is connected. >	
	Range : -200 to +200 (-20ms to +20ms) Unit : 10 (1 ms) Default : 0 (0 mm)	
3176	Job separator tape cut timing adjustment (Printing speed 3)	
	Adjusts the tape cut timing when the machine is printing at speed 3. < When optional Job Separator IV ; NIII is connected. >	
	Range : -200 to +200 (-20ms to +20ms) Unit : 10 (1 ms) Default : 0 (0 mm)	
3177	Job separator tape cut timing adjustment (Printing speed 4)	
	Adjusts the tape cut timing when the machine is printing at speed 4. < When optional Job Separator IV ; NIII is connected. >	
	Range : -200 to +200 (-20ms to +20ms) Unit : 10 (1 ms) Default : 0 (0 mm)	
3178	Job separator tape cut timing adjustment (Printing speed 5)	
	Adjusts the tape cut timing when the machine is printing at speed 5. < When optional Job Separator IV ; NIII is connected. >	
	Range : -200 to +200 (-20ms to +20ms) Unit : 10 (1 ms) Default : 0 (0 mm)	

11. Options (Memory) Test Mode

No.	Unit Check	
3340	Storage Memory Composition Change	
	Processing for changing the card used on model RP to a configuration compatible with the current machine. CAUTION: 1) The card will no longer be RP compatible. 2) Insert only one card in the slot. Do not insert two cards.	
3341	External controller Status Print	
	Prints out the External controller status.	
No.	Data Clear	
3355	Storage Memory Initialize (32M)	
	Initializes the storage device to delete data from the 32M storage device or when an error related to storage device prevents data restoration. CAUTION: Insert only one card in the slot. Cannot initialize two cards at one time.	
3356	Storage Memory Initialize (128M)	
	Initializes the storage device to delete data from the 128M storage device or when an error related to storage device prevents data restoration. CAUTION: Insert only one card in the slot. Cannot initialize two cards at one time.	
3357	Storage Memory Initialize (FAT32)	
	Initializes the storage device to delete data from the 256M to 8GByte storage device or when an error related to storage device prevents data restoration. CAUTION: Insert only one card in the slot. Cannot initialize two cards at one time.	
No.	Data Check	
3361	Storage Memory Information	
	Displays the volume label, capacity, area used, and available storage area. CAUTION: Insert only one card in the slot. Cannot check two cards at one time.	

12. Options (Linked Printer) Test Mode

No.	Data Setting	
3570	Linked printer - Print position adjustment (horizontally)	
	Horizontal print position adjustment on all the linked printers. The setting applies to all the RLP.	
	Range : -50 to +50 (-5.0mm to +5.0mm) (+ values move the image to the left.) Unit : 1 (0.1 mm) Default : 0 (0 mm)	
3571	Linked printer - Print position adjustment (vertically)	
	Vertical print position adjustment on all the linked printers. The setting applies to all the RLP.	
	Range : -50 to +50 (-5.0mm to +5.0mm) (+ values move the image to the top.) Unit : 1 (0.1 mm) Default : 0 (0 mm)	
3572	Zero print master-making warning	
	With the printer-auto-selection activated, master-making will be made, but the selection can be made to display the warning message [F60] or not when the print quantity is selected as zero (0) in scanner mode.	

	Setting:
	  0: No warning displayed. <default>
	  1: Warning displayed.	

3579	Link Duplex Print Auto-Repeat	
	The selection to keep the duplex printing mode activated or to deactivate the mode after the duplex print job is finished on a linked printer.	

	Setting;
	  0: Deactivate
	  1: Keep activated <default>	

13. Options (Auto-Stacker Paper Receiving Tray) Test Mode

No.	Sensor & Switch Check	
3600	Auto stacking guide home sensor	
	ON: Home position detected	
3601	Auto stacking stopper home sensor	
	ON: Home position detected	
3604	Auto stacking paper release button	
	ON: Button is pressed	
3605	Auto stacking paper detection sensor	
	ON: Paper is detected	
No.	Unit Check	
3640	Auto stacking guide home action	
	Brings the side fences to the HP position.	
3641	Auto stacking stopper home action	
	Brings the end fence to the HP position.	
3642	Auto stacking tray cycle action	
	Makes following movements: 1) Brings the side fences to HP position. 2) Brings the end fence to HP position. 3) Brings the side fences to the minimum width position (stops for 1 second). 4) Brings the side fences to the maximum width position (stops for 1 second). 5) Brings the side fence to the HP position. 6) Brings the end fence to the minimum width position (stops for 1 second). 7) Brings the end fence to the maximum width position (stops for 1 second). 8) Brings the end fence to the HP position.	
No.	Data Setting	
3670	Auto stacking guide home offset adjustment.	
	Adjusts the HP position of the side guide fence offset amount.	
	Range: -5 to +5 (-5mm to +5mm) Unit: 1 (1 mm) Default: -2 (-2 mm)	
3671	Auto stacking stopper home offset adjustment	
	Adjusts the HP position of the end fence offset amount.	
	Range: -5 to +5 (-5mm to +5mm) Unit: 1 (1 mm) Default: 0 (0 mm)	
3672	Auto stacking side guide fence position compensation (Card)	
	Adjusts the side guide fences position for receiving card papers on the tray.	
	Range: -20 to +20 (-20mm to +20mm) Unit: 1 (1 mm) Default: 0 (0 mm)	

3673	Auto stacking side guide fence position compensation (Standard)	
		Adjusts the end fence position for receiving standard papers on the tray.
		Range: -20 to +20 (-20mm to +20mm) Unit: 1 (1 mm) Default: 0 (0 mm)
3674	Auto stacking tray paper guide fence movement selection	
		Paper guide fence movement selection after the printed papers are taken off the tray and when new print job starts.
		Setting; 0: Does not make initial movement of the fences. <default> 1: Makes initial movement of the fences.

14. Other Options Test Mode

No.	Data Setting	
3770	Vender Selection	
	Selection between coin vender or card vender. **< This Test Mode does not apply on your machine.>**	
	Setting: 0: Coin vender <default> 1: Card vender	
3771	Panel message F94 [Protect mode: Discard current master] display selection	
	Selects whether F94 message, which normally appears each time the machine is powered ON, woken up or print drum is exchanged, to appear or not also when the Card counter is connected or when Authentication is enabled.	
	Setting: 0: Displays in normal condition only. 1: Displays also when the Card counter is connected or Authentication is enabled. <default> 2: F94 does not display at all.	

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